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VOCATIONAL EDUCATION
and
PRACTICAL ARTS
in the
COMMUNITY SCHOOL

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Vocational Education and Practical Arts in the Community School

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VOCATIONAL EDUCATION
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COMMUNITY SCHOOL

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PREFACE

The primary purpose of this book is to help local administrators, members of boards of education, teachers, and the people of a community (1) to increase the availability and effectiveness of those aspects of the school program designed to develop vocational competencies and (2) to enrich the general education of children, youth, and adults. It is based on the premise that effective school programs must be developed cooperatively by the people in the school and the community. The improvement of programs of vocational education and practical arts in the past frequently has been hampered by a lack of understanding of the meaning and potentialities of "community schools"; of the need for vocational education for secondary-school youth and adults; of the nature and contribution of the practical arts to general and vocational education; and of how such programs can be built into and made an integral part of the school program for elementary and high school pupils and adults.

In presenting theory and recommended practices in the development of community-school programs, the authors have drawn upon their own experiences and first-hand contacts with all phases of vocational education and practical arts. They have also, however, given recognition to experiences and theories of specialists in these fields.

This book is unique in several respects. It departs from the general practice employed in writings on vocational education by focusing on the community, its people, its resources, and its needs. While recognition is given to the role of Federal and State laws, plans, programs, and finances to improve the local community program, primary attention is focused on the use of these as aids in developing a complete program of vocational education and practical arts. Instead of organizing the content around the traditional vocational fields of agriculture, homemaking, trades and industries, and distributive education and stressing their differences, the authors have shown that these fields have many common elements, and that the objective of any good school program should be to develop a *complete* and *unified* program of vocational education and practical arts. Teachers in any one of these fields will find ideas, practices, and procedures in other fields that will apply to their own spheres of activity. Other unique features include an extended treatment of the practical arts: an interpretation of the role of the elementary school in this area; descriptions of cooperative occupational training and other work-experience programs; discussion of the use of citizens' committees for vocational education; consideration of facilities needed for these programs; and the nature of the task of interpretation of vocational education and the practical arts.

This book is intended for superintendents, principals, local directors of vocational education, and teachers. It is also addressed to school boards and members of citizens' committees in the public schools. It is especially organized to be suitable for graduate and undergraduate courses for teachers, supervisors, and administrators. The references following each chapter are selected from among the more recent significant writings in books and bulletins. The reader will find these references helpful in gaining a fuller understanding of the topics treated in each chapter.

The authors are indebted to a wide circle of professional friends and associates for suggestions regarding the outline and contents of this book. Special acknowledgments are due the following persons who read portions of the text and gave valuable suggestions and criticisms: Dr. Mary Lee Hurt, Dr. Donald Leu, Dr. Lyle Maxwell, and Dr. Guy Timmons, all of Michigan State University; to Dr.

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CONTENTS

PART I. VOCATIONAL EDUCATION AND PRACTICAL ARTS IN RELATION TO THE COMMUNITY SCHOOL CONCEPT

Chapter

1. The Modern Community School 3
2. School and Community Resources 15
3. Vocational Education and Practical Arts in the Community School 31

PART II. VOCATIONAL EDUCATION AND SOCIETY

4. Vocational Education and Democracy 47
5. Society's Need for Vocational Education 55

PART III. THE NATURE AND CONTRIBUTION OF THE PRACTICAL ARTS

6. The Practical Arts—A Part of General Education 81
7. The Characteristics of the Practical Arts As Compared with Vocational Education 99
8. Relationship of General and Specialized Education in the Community School Program 106

PART IV. THE ELEMENTARY SCHOOL PROGRAM

9. The Nature of the Modern Elementary School 125
10. The Practical Arts in the Elementary School 132
11. Education for Work Begins in the Elementary School 146

PART V. VOCATIONAL EDUCATION AND PRACTICAL ARTS IN THE SECONDARY SCHOOL PROGRAM

12. Characteristics of the Secondary School Population 159

13. Some Basic Needs of Youth 170
14. The Needs of Youth for Vocational Development 184
15. Characteristics of Vocational Education in the Secondary School 200
16. Characteristics of the Practical Arts in the Secondary School 239
17. Cooperation of School and Community in Vocational Education and Practical Arts 261
18. Guidance Services in Relation to Vocational Education and the Practical Arts 277

PART VI. VOCATIONAL EDUCATION AND PRACTICAL ARTS FOR ADULTS

19. The Need for Vocational Education and Practical Arts for Adults 299
20. Meeting the Needs of Different Groups of Adults Through Systematic Instruction 313

PART VII. IMPROVEMENT OF INSTRUCTION

21. Problems in the Improvement of Instruction 335
22. Cooperative Faculty Activities in Improvement of Instruction 351
23. Functions of Supervisory Personnel in Relation to Instruction 364
24. Resources Available at State and National Levels 376

PART VIII. ORGANIZATION AND ADMINISTRATION

25. Determining the Needs of the Community 389
26. Planning and Evaluation by School-initiated Citizens' Committees 409
27. Personnel Policies 428
28. Facilities in the Community School 439
29. Patterns of Organization of Administration 460
30. Financing the Program 481
31. Interpreting the Program 488
Index 503

PART I

Vocational Education and Practical Arts in Relation to the Community School Concept

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Chapter 1

THE MODERN COMMUNITY SCHOOL

One of the unique characteristics of American public education is the growth of schools that have become an integral part of the communities in which they are located. Frequently referred to as "community schools," they have characteristics that facilitate the development of effective programs of vocational education and the practical arts. It is the belief of the authors, indeed, that educational programs related to occupational life are dependent upon development of schools that are closely identified with the communities that authorize, support, control, and evaluate them.

The last quarter-century has seen a great upsurge of interest on the part of many citizens and educators to make schools contribute significantly to community living. A recent yearbook of a national organization of educators is a manifestation of this general interest.[1] This research helps to clarify the meaning of "community schools" and the ways of developing them.

The modern concept of the community school has been preceded and accompanied by several related ideas. Some people have apparently thought of the school as a community center, with a building and facilities available for group meetings of interest in the local area. Others have seen the school as a sort of "community service station" ready to provide the equipment and facilities in the school to individuals and groups who want specific services. Many successful teachers have carried learning beyond the classroom to study real problems of youth, adults, families, and organizations. From such work has emerged the concept of the community-centered curriculum.

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[1] *The Community School,* The Fifty-Second Yearbook of the National Society for the Study of Education, Part II, Chicago, University of Chicago Press, 1953.

The Community-School Concept

There are merits in each of the concepts just cited. The modern community school, however, is one which has deeper roots and which embodies a much broader concept. A basic part of this broader concept is the meaning of "community" as used in this book. An acceptable definition of a community has been contributed by Cook:

> . . . a community is (1) a population aggregate, (2) inhabiting a contiguous territory, (3) integrated through past experiences, (4) possessing a number of basic service institutions, (5) conscious of its unity, and (6) able to act in a corporate capacity in meeting recurring life crises.[2]

A community is, first of all, people—all the people in an identifiable geographic area. Its boundaries include the people who rely upon the basic social-service institutions in the area for their welfare. It does not refer to a village or hamlet whose people are dependent on nearby towns or cities for these services. Neither does it refer to a metropolitan center. Reference may be made in this book to "the larger community." In this phrase the term relates to the community aspects of a state, or the nation, or a homogeneous region within either.

If the school is to be a community school it should be community-centered and community-planned. The broad role which a community-centered school should assume is concisely stated by Seay, as follows:

> The community school, by means of the educative process, relates the resources of people and communities to the problems of people and communities in order to accomplish a higher standard of living.[3]

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[2] By permission from *A Sociological Approach to Education* by Lloyd and Elaine Cook, 1950, McGraw-Hill Book Company, Inc., pp. 48–51.

[3] Maurice R. Seay, "The Community School: New Meaning for an Old Term," *The Community School*, The Fifty-Second Yearbook of the National Society for the Study of Education, Part II, Chicago, University of Chicago Press, 1953, Chap. 1, p. 13.

If this worthy objective is to be accomplished we must not only see the community from the vantage point of the school, but we should also view the school from the point of view of the community. In a community in which there is a genuine community school, the education of youth and adults would be a primary or even a central theme of the citizenry. The community would become "education-centered." It will need to have the sanction and approval of the people of the community to organize a program built around their needs. The public schools belong to the people; therefore there should be citizen participation in making policies related to the program of the school, the persons to be served by it, and the evaluation of its effectiveness.

The Criteria of the Community School

Rather than to set down a formal definition of the community school, the authors prefer to suggest several criteria which a school should meet to be properly designated a community school. These statements are drawn from many sources but particularly from those criteria established for the Michigan Community School Service Program.[4] Other statements of criteria include those by Hamlin,[5] Lund,[6] and Yeager.[7] The first criterion is that *the school is identified with community life*. This means that the major vocational, civic, social, economic, cultural, and ethical problems of the people are also the concern of the school. But it also implies that the school has a program that is based upon the needs of those who live in the town or city and surrounding area where the school is located. The school should, of course, help to prepare people to make adjustments to new situations, since some may move to other communities. The school program does not reflect merely current life activities, but in addition the hopes and aspirations of citizens and youth for the improvement of living. Since the local community is a part of a larger regional, state, or national community, it follows that the school is identified with many problems that are of greater scope and that are involved with these larger communities. The identification of a school with its community does not come about automatically. It must be effected through conscious effort and careful planning by citizens and school people.

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[4] Edgar Grimm, "School and Community Development," in *Practical Applications of Democratic Administration*, Clyde M. Campbell, Editor, New York, Harper and Bros., 1952, Chap. II.

[5] Herbert M. Hamlin, *Agricultural Education in Community Schools*, Danville, Ill., Interstate Printers and Publishers, 1949, pp. 11–13.

[6] John Lund, "Education Can Change Community Life," *School Life* 31: 11–12, Nov. 1948.

[7] William A. Yeager, *School-Community Relations*, New York, The Dryden Press, 1951, pp. 443–444.

The second important criterion is that *the professional educators and the people of the community discuss and plan together for the development of school programs which will be related to community needs*. As Krug says, "Community-centered schools imply school-centered communities." [8] This reciprocal relationship demands suitable means for such coöperative discussion and planning. An example of such a device is the citizens' committee, which is coming into wider use.

The third criterion is of paramount importance because of the interrelationship of school and community. *Wise and extensive use is made of the resources of the community in the educational program.* People, as well as farms, homes, stores, factories, institutions, and agencies would become educational resources. They could provide information, experiences, and if wisely used, places to learn. Elaboration on the implementation of this criterion is given in the next chapter.

One of the more common weaknesses of schools in general has been their preoccupation with persons of a certain age range or educational goal. A true community school would be concerned not just with children and youth of compulsory school age. It should serve the out-of-school youth and adults. Such service should not be limited to those who "knock on the door" of the school and ask for the simple or more obvious programs of education or recreation. The school should be active in trying to discover what kinds of educational services its clientele needs and is interested in. It would not be exclusively preoccupied with college-bound youngsters. A community school is concerned with youth who drop out of school, and the children of transient workers. The person who had never attended school, or who had attended for a short time, the unemployed, the retired worker, the person seeking a better job, all are of concern to this school. To be sure, there are likely to be other institutions or agencies in many communities which also feel an educational responsibility for some people and try to meet some of their specific needs. However, *the school, in coördinate relation with other community agencies, is of service to the entire community*. This criterion also embodies the principle that no restrictions should be imposed which would exclude from the school any persons because of age, sex, race, religion, or residence.

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[8] Edward Krug, "The Program of the Community School," *The Community School*, *op. cit.*, Chap. VI, p. 90.

In certain communities many high-school pupils will be found who live outside the legally drawn school district. The families of these pupils use the services of the local institutions in such areas as religion, health, recreation, and communication and do their family shopping there. Therefore, the school district boundaries, the normal high school attendance area boundaries, and the limits of the community as an economic and sociological unit should ideally be identical. In many cases the school district may need to be reorganized so that its boundaries coincide more nearly with the boundaries of the community. In other cases the high school attendance area may be the key to the scope or extent of the community area. Brunner and Kolb concluded that

> From every region and by every method of study came the report that the school, more especially the high school, was the most important and decisive single factor in determining town and county community solidarity or in defining community areas.[9]

To admit to a school only high-school pupils from outside a district, although they are in the community, while at the same time failing to provide for classes for adults of the same areas and not providing for the participation of their representatives in policy making and program planning, would be to deny the existence of a true community consciousness. Hamlin, who has studied the matter a great deal, concludes that

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[9] Edmund de S. Brunner and J. H. Kolb, *A Study of Rural Society*, Boston, Houghton-Mifflin Co., 1935, p. 131.

> The school district or the attendance unit within the district is an area which is already, in some respects, a community and which offers the possibility of developing more of the characteristics of a true community.[10]

It is not suggested that district boundaries should be established to change the scope or extent of the community. Rather, the reverse process should occur. That is, the true community boundary should become the school district boundary and attendance unit.

The fifth criterion of the community school is that *in its administration and teaching it exemplifies the principles of American democracy*. All the other criteria depend upon this one for their fulfillment. The democratic approach to administration and teaching implies group participation. In a community school the superintendent and the local board of education give teachers and representatives of the people a voice in helping to determine school policies, in deciding on school programs to be inaugurated, and in suggesting ways and means of improving various aspects of the school. Teachers involve their students in coöperative planning and in projects of concern to them and others in the community. In short, unless the educators in a school are willing to conduct the school along democratic lines they will not have a community school, no matter how much they may desire the designation.

The Concept as It Affects Program Structure

A school that fulfilled these criteria would not necessarily be concerned with subjects, activities, or projects merely because they had always been a part of the program nor because the teachers either strongly believed in them or were particularly well qualified to direct them. If the community-school concept were accepted, the makeup of the local area itself would be carefully studied. An inventory of the health, educational status, occupational needs, and cultural interests would be made. Many other kinds of information about the people of the community would be ascertained. If the study showed the need for adult courses in homemaking or agriculture they would be added. A course in driver training could be installed if there were a desire and justification for it. A community school would make provision for new programs, for expansion of old ones, and for reorganization of others, as needed.

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[10] Herbert M. Hamlin, *op. cit.*, p. 12.

One handicap under which some schools have labored is lack of flexibility in the schedule of their programs. The high priority typically placed upon classroom teaching often results in a schedule in which the teachers have little time to get outside the building with or without their students to gather intimate and pertinent facts about the community. If a new need called for such types of teacher activity as visits to farms, stores, factories, or homes, it might be discovered that the teachers already were responsible for being in their classrooms too many hours during the week. It ought to be made easier for teachers and other school people to go into the community to learn about the community's problems. Likewise it should be a normal experience for a person not regularly enrolled in elementary or secondary school to come to the school for consultation with someone who could help him with his problems of advancing to a better job, making his home a better place in which to live, or making better use of his leisure time.

The Kind of Teachers Needed in the Community School

A school is no better than its teachers. It is they who will determine to a very large extent whether the institution in which they work can appropriately be regarded as a community school. To be effective members of the faculty, teachers should have, in addition to the traditional abilities, reasonable competence in several important areas. Two are mentioned here. The first of these is the recognition and utilization of resources for educational purposes. They must become aware of what students can learn from talking with workers and others in the area and from observing them at their tasks. Teachers are needed who have had experience in interviewing and other techniques of gaining local information. They should feel at home talking with employers, parents, and representatives of local institutions. They need training in community study and in interpreting the community to those enrolled in school. The importance of interpreting the school to the community is, of course, recognized.

Teachers must also be skilled in democratic procedures. If the help of persons in the community is to be sought and used, teachers will need to acquire techniques of group involvement and group leadership. The people of the community should realize that the school belongs to them and that educational programs are their programs. They should be made to feel that their part in helping educators to plan such programs is important and real. It takes ability of a high order to help groups of people in the community to discover their real interests and to decide what it really is that they want their school to do. Teachers should, of course, be responsible for determining the educational methods which they will employ.

Inter-dependence of School and Community—The Community That Reveals Its Needs

It is becoming disturbingly clear in our American system of public education that many citizens do not know that the school in their community belongs to them. They may not understand that they have a right and a responsibility to reveal to the schools their problems and accompanying desires or needs of an educational nature and to judge whether the schools are adequately taking care of them. It is also a cause for concern that many educators do not realize this either. This tendency to aloofness by school people may stem from a feeling of expertness resulting from their professional education. They may have had the impression that they, alone, were charged with the responsibility for sensing needs.

The educational needs of a community cannot be identified and studied unless adequate machinery is available. If, for example, an occupational survey is called for, there should be persons on the staff of the school who are competent to make such a survey with the advice and assistance of local people. There should be adequate funds provided by the school or by local agencies or institutions for the survey. If discussions centering on local problems are needed, then a place to meet and skilled discussion leaders must be provided. In order for needs to be identified and translated into recommendations for action, provision for some kind of citizens' advisory committee should be made. Detailed suggestions on citizens' committees are treated in Chapter 26.

The School That Meets Community Needs

While the program of the community school should deal with the life and the problems of the people of the area, it should not necessarily solve these problems. Neither should it seek to do for people the things they should do for themselves. The school should aim to assist people in helping themselves. Many persons can teach each other under the guidance or supervision of professionally trained people. This has been amply demonstrated in specific training for job skills.

The community school should stimulate and help students to carry learning to the doing level. Thus the farms, homes, stores, factories, and other establishments would serve as the "laboratory" in which youth and adults would practice or apply the principles they were learning. The school that tried to deal constructively with the people's concerns would encourage its students to engage in individual or cooperative projects that would aid in widespread betterment, help the individual to find his place in the economy or social structure of the community, or raise the standard of living.

The Community Support of the School

Educators and observant citizens agree that a community will support an institution which seems to benefit it. School people do not have to think of themselves as salesmen setting up a new course, or starting a new department, or inaugurating a new activity. A school which already belongs to the people does not need to be "sold" to them. Rather, the role which school people should take is more like that of the purchasing agent. Educators should diligently endeavor to find out what it is that people in the community want, educationwise, and to buy it for them.

Support of the people for their school will be proportionate to the benefits that they receive. This support will not be financial alone. If the program of the school deals with concerns of adults, these adults will tell others and thus aid in recruitment of members of adult classes. It has been shown that if there is a strong program of practical arts, local industries and businesses will open their doors to classes for visits, will lend equipment for use, and will furnish valuable information for instructional uses. Parents will donate labor to help build, redecorate, or remodel facilities. Such support may be more valuable in the long run than dollars.

The Stake Which the School Has in the Community

The community school should be evaluated largely for its contribution to the improvement of the economic and social welfare of the locality. The people of the community contribute some of their resources, time, and money to the schools. In turn, it may be said that the facilities and the time and effort of the professionally trained staff of the school are made available in the community. The school, then, has a stake in the community. The returns on this "investment" will be in such terms as improved homes and family living; youth who become skilled as mechanics; farmers who increase their earnings through learning how to organize their businesses better; drivers who lower the rate of accidents; and people who make constructive use of their leisure time. To be sure, these are "dividends" to the people of the community, but if they have come about as a result of coöperative planning by laymen and school people and programming by the school, the school will prosper and grow in public esteem. Thus the effectiveness of the school of the future is dependent on the esteem of the people.

To Whom Do Community Schools Belong?

While the local school belongs to the people who live in the community—non-taxpayers as well as taxpayers—it also belongs to the larger community of the state and the nation. This fact is the main justification for state and federal support of education. Although this justification is not universally understood, it is not argued at this point. It should be made clear, however, that schools do not belong to individuals who want to promote special causes, like building an organization, fortifying a political cause, or producing winning athletic teams. Above all, they do not belong to the professional educators. If the people of this country could be made aware that the kind of school they could have depends upon their needs and their willingness to ask for such a school and to help build it, they might become much more articulate about their desires. We had better, then, take a good look at their needs and the abundant resources available for educational use in most communities.

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Chapter 2

SCHOOL AND COMMUNITY RESOURCES

Resources usually are divided into two categories, human and natural. For purposes of discussion, however, this classification is broadened to include the production and distribution of goods and services as well as government and other agencies and organizations. All these are educational resources and may be used by society to improve its standard of living. This chapter is especially concerned with the use and coordination of these resources in developing and improving programs of vocational education and the practical arts in the schools. It is important, therefore, that these resources be identified and that their scope and characteristics be recognized.

Human Resources and the Schools

The people who make up the labor force in this country have social significance beyond that of being merely one factor in the American economy. They are an educational resource of great value, particularly for developing occupational skills in others. In the farming community, for example, the competent farmer is an educational resource. By studying him a person learns what may be required of a successful farmer. The successful farmer will be using many of the approved practices that should be taught. The farmer, on request, will be able to demonstrate how to perform many of the jobs which young or adult farmers need to learn. He is aware of many problems with which he and his neighbors have been faced and on which they would like help.

The employer in business or industry likewise is a source of help in determining the answers to such questions as, What kind of occupations are represented among the employees? What is the job turnover? What qualifications should the workers possess? How much training do they need? How much and what kind of training can or will the employer provide? What in-service training do he and his employees need? And the employee can furnish valuable information on how a person can prepare himself for a position of higher grade or do his present work better. Leaders in vocational education long ago discovered that the best way to organize a course to prepare an individual for a particular occupation was to study the "masters" in the occupation to find out how the most successful men and women operate. Employees and employers do, at times, teach one another. Both have knowledge and experience that also can be drawn upon in planning and conducting school programs of vocational education and practical arts.

The experiences and points of view of parents could be of great value to the schools. The manner in which they have solved problems of home and family living have been of great practical value to youth. Without the cooperation of parents the application of lessons learned in a course in homemaking would be impossible. A young man hoping to work into a partnership with his father on the home farm needs the on-the-spot training that his father can give him. Parents often are a major factor in helping a youth to get a job where he can get training in the skills required.

Although vocational education in our secondary schools is not concerned with preparing boys and girls for the professions, people in the professions constitute an educational resource which should not be overlooked, for there are many occupations very closely allied to some professions for which youth can prepare through well-planned programs of vocational education. Examples include occupations such as those of the practical nurse, the laboratory technician, the custodian, and the specialized office worker.

People of similar occupational interests and employment status often group themselves into organizations. Our society is quite accustomed to this phenomenon. In addition to labor organizations we have farm organizations and associations of retail merchants, insurance underwriters, firemen, realtors, and others, as well as service clubs and fraternal or religious organizations. These groups could do some things that individuals acting alone could not do, such as promoting apprenticeships and opportunities for work experience; making movies of workers; arranging visiting days for teachers in business and industrial establishments; or providing loan funds to enable farm boys to purchase livestock or feed. They can be of great aid to youth and adults in developing activities that will help them to gain a better understanding of the world of work and their place in it.

Educational Uses of Natural Resources

Natural resources are an essential factor in our economy. They are coming to be recognized by enlightened people everywhere as an endowment that must be used wisely and conserved. Study of the natural resources of the community must be made so that the future of occupations that are dependent upon these resources may be forecast.

In many respects soil is our most basic natural resource. A study of the soil not only will help to indicate whether farming is an occupation for which a community school should provide preparation, but also will help determine what kind of farming can best be carried on. In a community school students do not limit their study of soil to books, bulletins, and visual aids. They go directly to the land and observe the soils and the crops best produced from different soils. Soils are so basic to our existence that they and other natural resources should be studied not only by farmers and others living on farms but by everyone.

Water and mineral resources are of comparable importance in many communities. Soil without water is barren. Problems of rainfall, runoff, water storage, and irrigation are vital to many communities. In coastal communities and in some communities in the Great Lakes region, occupations connected with navigation or with fishing are important. In addition, in many resort communities specialized occupations dealing with sports and recreation have developed. Consideration of the water resources of the community should include the potential development of their use in the future. This is important if long-range planning of occupational training is to be carried out.

The occupational pattern of a community may also be influenced by its mineral resources. In some localities the discovery and use of oil, coal, iron ore, or other minerals have created "one-industry" communities. Pupils in school should study and observe the nature and wise use of these resources, particularly as they affect the industrial processes and the present occupational pattern of their communities.

The forests and wild life of a community often are taken for granted by its residents or may be looked upon by them as something merely to exploit. But the conservation of these resources affects the economic life of the community, both present and future. Some schools, aided by state conservation departments, have established school forests which are used as a part of the school laboratory. Conservation practices are demonstrated and activities common in related occupations such as those of forester, conservationist, or wild-life specialist are explored.

By educating people in the wise use of natural resources, a community can help not only to provide for its own economic future but also to create or enlarge upon occupational opportunities for its citizens.

Establishments of Production and Distribution as Resources for Education

Study of establishments engaged in production and distribution is an excellent way to find out about occupations in which one is interested. Furthermore a student employed part time will gain experience or instruction needed to qualify him for a job in an establishment engaged in manufacturing, processing, wholesaling, retailing, or the like. Educators have been aware of this fact for a long time. However, too often they have misinterpreted the significance of the "place of work" in the scheme of worker training. They realize naturally that the resources of these concerns do not belong to the school. But it should not be assumed that because of this they may not be used by the school. Too often school people have naïvely assumed that unless the student can learn to do a job within the four walls of the school, the school cannot give job training. But people learn by doing—farmers by farming, salesmen by selling, carpenters and masons by building, and so on. The school program of vocational education and practical arts must identify these "places of work" as resources and make use of them as such. When a person accepts this concept, the logic of thinking of the factory or the farm as resources which could be used by schools becomes clear.

No program of vocational education can be effective that does not make use of learning experiences possible in establishments engaged in production and distribution. The farms, the factories, the stores, the offices, the homes all present situations which may be studied. They may provide information helpful to the solution of vocational problems encountered by students. Other information may be obtained about workers, such as skills to be learned and qualities to be developed. The school should be a place where these abilities can be studied and practiced. Most programs of vocational education will be effective in proportion to the extent that experiences in these places where people work become a part of the curriculum.

Governmental Agencies as an Educational Resource

A quick glance at a telephone directory will reveal many agencies of the federal government which can be used as resources for vocational education. A county seat town may have listed the Soil Conservation Service, the Farmers' Home Administration, and the Production and Marketing Administration. These agencies help the farmers. In larger communities one may find, in addition, other agencies of the U.S. Department of Agriculture, as well as departmental field offices of the U.S. Department of Commerce, the U.S. Department of Labor Bureau of Apprenticeship, the Bureau of Labor Statistics, and the

Civil Aeronautics Administration, to name only a few. Although not all these may be located in every community, some of their reports and services will be available in most towns.

What has been said of federal governmental agencies applies as well to some agencies of the state government. State agencies to be found in many communities include the Conservation Department, the Agriculture Department, the State Employment Security Commission, the Labor Department, the Vocational Education Office of the Department of Public Instruction, the Office of Vocational Rehabilitation, and others that are concerned in one way or another with employees, employers or the schools. Some agencies contribute information that is useful in planning school programs of vocational education and practical arts. Others offer consultants and educational activities such as conferences for teachers. The persons employed in these agencies are our public servants. They are interested in the public welfare and in education.

Institutional Resources Outside the Public Schools

In some communities private vocational schools may be available. These are of three types: (1) those in larger industrial centers, operated by businesses or industries to assure a steady supply of skilled workers for their own use; (2) private schools such as business, trade, and technical schools that are operated for profit and offer specific vocational education; and (3) endowed or non-profit schools. The availability of such schools will bear upon the number and type of specific programs to be planned in connection with the public schools.

Correspondence schools have, for many years, offered courses designed to develop occupational skills and abilities of one sort or another. Some are good; some may be worthless. Courses are available to persons in most communities. In this respect correspondence schools are unlike the private vocational schools which, in order to maintain themselves financially, must locate in the bigger cities where large enrollments can be assured.

The Cooperative Extension Service is an arm of the land-grant college of agriculture located in each state. Branch offices of this service are found in every county in most states and provide informal education and service to farmers and homemakers. A school program of vocational education needs to take cognizance of the activities of the Cooperative Extension Service to avoid overlapping or duplication in educational services and to utilize the help of this service. The schools should also help the Extension Service to make its program more significant and helpful.

The U.S. Maritime Service, an organization for training licensed and unlicensed seagoing personnel, administers a grant-in-aid program for State marine and nautical schools.

The Resources of the Schools—Potential and Actual

It may seem trite to say that the schools should use their own resources. However, facilities oftentimes overlooked by the schools may be of great value. For example, most schools have one or more offices in which typists, clerks, and other office workers could receive practical experience. Science teachers with the equipment and supplies available in their departments could provide students working part time with valuable instruction related to the job they are learning. A school cafeteria could provide exploratory experiences for pupils which many school people might not have thought of or might not have utilized fully.

In many instances more efficient use could be made of the classroom, shops, and laboratories of schools. Some public schools have tended to be preoccupied only with the education of children and youth. Their facilities, if used for upgrading adults in their occupation, could be used in the evenings and during some of the summer months as well as in the daytime and during the normal school hours. Many elementary-school or high-school teachers can instruct adults and out-of-school youth in occupational skills. These teachers constitute an important resource in the community school. Their special talents, experience, and interests should be inventoried and put to use where needed.

Finally, it should be recognized that the schools have resources in facilities, personnel, and libraries which employers and employees can make use of in connection with their own educational programs. Organizations of farmers, laborers, or homemakers, as well as some governmental agencies which conduct educational programs of a vocational character, can and should expect to make use of these resources which the public schools have.

Work-Related Aspects of General Education in the Schools

The school program of general education could contribute significantly to the general occupational proficiency of youth and adults. The role of general education in relation to vocational education will be discussed at length in Chapter 8. It may be stated here, however, that some understandings, habits, abilities, and attitudes are essential to *all* workers in our economy, regardless of the specific jobs they hold. These should be the concern of the entire school system.

Pupils in the elementary and secondary schools should study the community to discover who the workers of the community are and what they do. In this study they will come to understand some of the things that are required of these workers, regardless of the occupation in which they are engaged—that certain tradesmen, for example, must be proficient in mathematics or that stenographers must be good at spelling. They will discover that salesmen need to express themselves clearly and forcefully. Their visits should include establishments where many persons work at a wide variety of tasks.[1]

At the elementary level pupils should gain general impressions of what makes the community "tick." At the secondary level they are ready to look at the community resources one at a time, and to try to find out enough about them to help them decide upon their own occupational future. The problems of production and distribution of the world's goods become real to students as they study first-hand the farmer and his problems; the industrial or business worker and his concerns and needs; and the problems of the consumer in fully utilizing these goods.

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[1] For a description of how one school has done this see an article by Donald Lippold, "Students See the Community at Work," *School Shop* 13: 12–13, May, 1954.

Helping Youth to Explore Occupations and Study Vocational Interests

In the past ten years much has been written about work experience in the school program. Work experience is valuable because it provides the youth with an opportunity to learn what is expected of him by the employer, the conditions of work, and some of the skills and abilities a person needs to develop in order to succeed in some occupations. He may reach a decision on whether he would like to do certain kinds of work and, to some extent, whether he possesses the aptitudes necessary for certain kinds of jobs.

The opportunity to learn those things under employment conditions is very limited within the school itself. School people are becoming aware of the opportunities of an exploratory nature that part-time employment of youth in the community provides. Neither farm-reared nor urban youth have had much of a chance to learn by actual experience whether they might like to work at anything besides the work in which their fathers happen to be engaged. The resources of the community should be studied and, where possible, used to provide exploratory work experiences for youth.

Helping to Provide Experience in the Occupation

The resources of the community should become part of the classroom, particularly for providing on-the-job experiences in an occupation of the individual's choice. The principles and practices studied in theory in classroom, laboratory, and school shop can be applied in the farm, office, shop, or store. By actually clerking in a store the prospective store salesman learns to sell. While producing a crop or rearing an animal on the farm the aspiring farmer learns to make decisions and to apply approved practices as they bear directly upon the enterprise. And the best way for a person interested in clerical work to learn office procedure and technique is actually to work in an office.

Some of the agencies and organizations referred to earlier in this chapter could be approached for making arrangements for such on-the-job experience. The schools may get valuable advice and counsel from these and other agencies, both in an organized as well as in an informal manner. For example, a retail merchant's association might aid in setting up coöperative work programs for training store sales persons. The State Department of Vocational Education provides consultants who can help employers and school people to develop on-the-job training programs. The support and aid of organizations like this will go a long way in insuring the success of programs designed to give youth actual job experiences.

Helping to Provide Instruction in the Occupation

Limited experience in several occupations often enables a youth to consider each one critically and to decide which he will choose as his life's work. Then he may proceed to get additional experience and to develop skill in the occupation he decides upon. However, experience alone will not automatically result in the proficiency desired any more than what is often referred to as the "pick-up" method. Furthermore, the "pick-up" method of learning an occupation consumes a lot of time. For example, a waitress in a restaurant might serve customers for days, but unless she were adequately instructed and supervised she would not learn time-saving techniques and approved practices for dealing with people.

The "know how" possessed by efficient workers in the community should be passed on to new workers who want the skill needed to get jobs, hold them, and rise in or beyond them. Workers in supervisory positions could be of great help to the learner. They might not realize, however, that they would need to demonstrate to a beginner how to do a job, or that they should supervise the beginner properly at work. They are skilled in the occupation, but might not be able to transmit their skill to others. This does not lessen their value as an educational resource in the process of occupational training. School people could help such employers, supervisors, or foremen to break down the occupation into its jobs and operations, to identify the information the learner needs, and to impart such information and skills, through demonstration or other teaching method.

There is another very important way in which employers or employees might be used. They could be asked to help as "resource persons" or "assistant teachers" in vocational classes in the school. For example, the teacher of agriculture could take his class to visit the farm of a successful dairyman. This farmer could be asked to describe to the class how he has built up the milk-producing capacity of his dairy herd through a breeding program or how he has increased production through changes in rations and feeding practices. Or the employee of the Soil Conservation Service could be consulted by a class of adult farmers about contour plowing, crop rotation, or soil building practices. Likewise, the homemaking teacher and her class could visit the local frozen-food plant. There the operator might describe the methods of selecting food for freezing and show the class how to preserve food through freezing. Safety experts in industry could be invited to the schools to teach safe practices in the shop. A manager of a print shop would be an excellent resource person to assist in a discussion in an adult printing class and show the members how to improve the efficiency and the quality of their work.

The use of persons in the community for help in teaching practical arts courses also has great potentialities. For example, the industrial arts teacher could conduct his class in industrial arts through a local factory to study industrial processes, or could invite a local furniture dealer to meet with a class that is interested in learning more about how to select furniture for the home. The use of people employed in local, state or federal agencies or in organizations of producers, distributors, or service personnel presents great possibilities.

Most people in the typical community will be glad to spend time in many of the activities just suggested, if they understand the purposes behind the program. The schools belong to these people. They have children who attend the schools or they may actually be enrolled for instruction in some department of the school themselves. They are interested in what the schools are doing, are anxious to help the schools do the best job possible to prepare youth and adults for the work of the community.

Resources Supplementing School Equipment and Facilities

Where departments of vocational education are providing training for specific occupations, it is important to have facilities and equipment that are up to date with the latest methods in business, industry, the farm, and the home. Obsolete facilities make for obsolete training. Obviously, it would be impossible for the schools to provide all the facilities for teaching all phases of all occupations. But schools have made great strides in developing teaching aids. In the early days of homemaking instruction, for example, a room for cooking and a room for sewing often sufficed. Today, however, some schools are equipped with a homemaking house or apartment and many others provide a suite of rooms with unit kitchens, a dining room, and a living room. Others have a large all-purpose room in which many types of homemaking activities are carried on simultaneously. Many local resources can be utilized to supplement this equipment. The homes of the community are the most important of these. The teaching of child care and training, home decorating, family relationships, and many other phases of homemaking depends upon utilizing the facilities in the homes of students.

Not only should homes be considered as part of the facilities for teaching, but also the farms of the community should supplement the agricultural classroom and laboratory and the school farm shop. It is true that in some regions a majority of the schools now conduct school farms as a part of their programs, and in many states the school forests are used by the department of vocational agriculture as well as by other departments in the school. The home farms of students, will, however, in most cases provide a better means for carrying into practice much of the information taught to prospective farmers in the classroom.

The advice of employers and employees on the type of equipment needed in shops will be invaluable in equipping schools that train for trades and industries. Some school shops, such as those for auto mechanics and printers, could provide most of the facilities needed to train persons for initial employment in industry. However, there are many occupations represented in the community that it would be unwise to attempt to duplicate in the school shop, because of their specialized nature, their cost, or the small number of persons to be trained in the occupation each year. Many of the industries and trades in the community could be utilized in the program of vocational education, however, through a coöperative training program. Under such a program the employer would give part of the instruction on the job and part would be given in the school. For example, a boy could work part-time in a dry-cleaning establishment, familiarizing himself with the equipment and in learning other aspects of the trade, while related instruction in chemistry and textiles could be handled in the school.

The utilization of facilities in the community must also be considered in business education. Some equipment, such as typewriters, and some of the more common office machines could be supplied fairly easily. Some schools set up a school "store," which either functions as a store for the school personnel or is used to simulate store activity. It would be impossible, however, for a school to duplicate all different kinds of stores or to cover all contingencies that might be encountered in an office. Any school which expects to provide realistic training in business occupations should lean heavily on cooperative programs with business concerns for the utilization of their facilities and equipment.

The Ultimate Result of Full Utilization and Coordination of Community Resources

If the schools of America were to utilize more fully the training facilities already available in the communities in which they are located, their programs of vocational education and practical arts would be much more significant than they are. The same may be said regarding the full use as educational resources of people, organizations, and agencies and establishments of production, distribution, and public service.

By definition, a community school is one which, among other things, makes use of these resources in improving school programs. There are no areas of the school program where this is more essential than in vocational education and practical arts. The resources inherent in the economy of a community are the very life blood of vocational education and practical arts.

It is probably true that in the past some administrators have hesitated to establish such departments for various reasons. They may not have known what training to provide or have been only vaguely aware of what proportion of training to allot to specific occupations. Again, the sheer variety and number of the different occupations to be covered may have discouraged some. Also the problem of securing capable instructors to handle specific training aspects has been a stumbling block. Other administrators have not been able to see how it might be possible to teach the theoretical aspects and at the same time provide actual experience in application.

Most schools are plagued by problems of financing. But the provision of adequate programs of vocational education and practical arts is not an unbearable burden. It is not something that only wealthy communities can afford. Communities should start with what they have. Significant programs of preparation for occupational competency can be developed if educational use is made of available resources. The goals of this use should be to help determine what programs to offer, to provide instruction in the occupation, to provide experiences for the learners, to supplement school facilities, and to ease the financial load. It is true that communities differ in what they have to work with. All communities, however, are entitled to much help from agencies of the state and nation. They also could make a great deal more use educationally of people, farms, shops, and stores than they do.

Among the nations of the world today, America is known for the abundance of her resources. She is not equally well known for the strength of her community programs of vocational education. If the schools were to make the fullest possible educational use of America's resources we could have programs of vocational education commensurate with the needs of our people and our economy.

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Chapter 3

VOCATIONAL EDUCATION AND PRACTICAL ARTS IN THE COMMUNITY SCHOOL

The relationship between the characteristics of a community school and its program of vocational education and practical arts is a correlative one since they are interdependent. The development and improvement of a program designed to aid in preparing youth and adults for the work they do will help to fulfill the criteria of a community school as listed in Chapter 1. The complementary relationship is equally important. That is, a program of vocational education and practical arts will be most effective in a school that is planned and operated on a community-centered basis. It is the purpose of this chapter to discuss each of these relationships in turn, with stress placed on the responsibility of the schools in providing vocational preparation.

Vocational Education and Practical Arts Aid in Fulfillment of the Criteria of the Community School

Public Schools are dependent upon economic resources for their existence. A strong and stable economy is needed in the community, state, and nation if we are to have the kind of schools needed by our society. This strength and stability are dependent upon the efficiency of workers in establishments of production, distribution, and service. The school should become closely identified with the economic life of the community through vocational education and practical arts. It should be natural for the people of the community to enter into cooperative planning of programs for occupational training, since it is common for groups to form somewhat as a result of common occupational interests. Discussions within each group develop a group consciousness among employees and the self-employed. Information is shared with respect to abilities required, standards of work, employment conditions, future needs, problems, aspirations, and successes or failures of the workers.

In the preceding chapter it was made clear that vocational education and the practical arts should utilize the resources of the community for educational purposes and that these practical programs could also help the people more wisely to use and improve upon these resources. With such a demonstration taking place in communities, it should be much easier for school people to see similar ways of tying other areas of the schools more closely to the local and the "larger" community life, thus making the total school program more vital to the people.

We have further pointed out, in connection with the discussion of the community-school concept, that the school should serve persons of all ages. A recent nation-wide analysis was made of data from 2,684 school districts.[1] It was found that adult education activities in the vocational fields were much more widespread than in the nonvocational fields. With the exception of recreation, more schools reported adult courses in agriculture (37.4 percent) than in any other field. Other popular adult courses in vocational education and practical arts were homemaking (34.5 percent), business education (29.8 percent), trade and industrial education (29.8 percent), and arts and crafts (27.9 percent). In many instances school programs of adult education have grown from pioneer vocational or practical arts courses. Vocational education and practical arts programs thus will help the school fulfill the criterion of serving all groups regardless of age.

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[1] Homer Kempfer, *Adult Education Activities of the Public Schools: A Report of a Survey, 1947–48*, Pamphlet No. 107, Washington, D.C., U.S. Government Printing Office, 1949, p. 14–15.

The criterion relating to joint program planning by lay persons and school men received early recognition by leaders in vocational education. This has been particularly true in the coöperative programs involving both employers and the schools, as well as in development of projects in the fields of agriculture and homemaking through parent-teacher-student conferences and joint planning.

There is nothing that will promote the school consciousness of people more than their own participation in some of the school activities. Adult courses in vocational education and practical arts have helped to convince the people of the community that the school is theirs and is for their use.

One crucial test of whether the people want and believe in vocational education in the schools is whether they are willing to supply the financial and other support necessary to maintain or increase the scope or quality of these programs. According to data from the United States Office of Education, in 1920 for every dollar of Federal funds spent on reimbursed programs $2.45 were spent by states and local communities. By 1931 this had increased to $3.04. Following the depression and the increase of Federal funds through new legislation the state and local participation went down to $1.75 by 1941, but by 1953 it had risen to a new high of $4.40.[2] During the decade, 1941–51, the total amount of Federal funds for vocational education increased only 24.1 percent as compared to the 118.3 percent increase in local and state participation, and from 1951–53 the Federal contribution was reduced. So it is quite apparent that local communities have been willing to increase their support for programs of vocational education in their schools. Some of them have supported such programs without seeking any Federal support. The tremendous growth of programs of industrial arts in the schools, without Federal financial support, and the large number of schools offering un-reimbursed programs in business and homemaking are also an indication of increasing community support for this type of work.

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[2] *Digest of Annual Reports of State Boards for Vocational Education for Fiscal Years Ended 1941, 1951, and 1953,* Washington, D.C., U.S. Office of Education, Vocational Division, 1942, 1952, 1954.

Schools which have had successful programs of vocational education and practical arts have risen in the esteem of the citizens. The people have recognized that such programs have enriched the educational offerings and have yielded "dividends" on their investment.

The Community School Is Basic to Adequate Vocational Education and Instruction in the Practical Arts

The fulfillment of criteria of the community school should not only be regarded as a *result* of justifiable emphasis on vocational education and the practical arts. It is actually a necessity for the development of truly effective programs. The school must reach into the community and tap the resources necessary for good education. Without the use of these resources as discussed in the previous chapter, attempts at vocational education will be ineffective or less effective.

Since good programs of vocational education are impossible without joint planning by citizens and educators, it should be rather clear that the kind of school needed is one which will provide the opportunity for such planning. Vocational education is dependent upon community agencies that can aid in job training. It is also important, therefore, that the school be ready to recognize the contributions of these agencies.

The furtherance of a vocational training program implies that the school will be concerned with youth of all levels of ability, academic inclination, and vocational goal, but particularly with the 75 percent of boys and girls who will go to work in the community immediately upon high-school graduation, if not before. Conversely, vocational education and the practical arts will languish in a school system that is preoccupied with the education of college-bound youth. But we must also have schools that are concerned with adults in order to do an effective job, since much of the vocational education that is needed is at the adult level. The future will see greater stress on adult education.

Education for Work as a Responsibility of Community Schools

A school cannot truthfully be said to reflect life in the community if it does not concern itself with the work that people do. Work is the most important single factor in the life of the people, and success at one's work is a goal of most workers. However, several questions might be raised concerning the responsibility of the school for development of occupational competence. Cannot or should not the employers give the necessary training? Cannot the specialized education for occupational training be left to the private vocational schools? Cannot parents provide adequate training for their sons and daughters, especially in such areas as farming and homemaking? Do the people of most communities really want their schools to provide this type of practical education? Can the American people afford this costly type of training in their local schools? These, and other related questions need to be answered in order to provide a reasonable perspective for viewing the responsibility of the community school for vocational education and the practical arts.

It is true that many larger organizations make provision for training new employees in the specific skills needed for repetitive type jobs, particularly those that can be learned in a short time. However, these are mostly unit-skilled workers in the manufacturing industries. According to Shartle's analysis such workers represented only about 20 percent of the labor force in 1950.[3] Furthermore, many of their employers will not provide all of the long training programs that might be required, for example, to prepare a tool-and-die maker, a stenographer, or an electrician.

The private vocational school is not a complete answer to the problem. These schools are of three types: proprietary schools operated for profit; endowed or non-profit schools; and company schools offering training for their present or prospective employees. Since the proprietary vocational schools must draw students to make profit for their owners, they are located in the larger centers of population.

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[3] Carroll L. Shartle, *Occupational Information, Its Development and Application*, New York, Prentice-Hall, Inc., 1952, p. 333.

Many private schools add to the training facilities of such centers. They are not generally accessible, however, to millions of people all over the country living on farms and in villages and towns as well as in smaller cities. The profit motive in many of these schools also very naturally causes emphasis to be placed on recruitment rather than on improvement of instruction and vocational guidance of enrollees. Most of the private trade schools offer training in only one trade or family of trades, such as electricity, welding, office work, and similar occupational fields. If a person, after enrolling and paying his enrollment fees, finds that he is not really interested in the subject, he has no recourse but to drop out of the school with or without refund of fees. The private vocational school as a solution to the problem of providing education for work has another shortcoming. It is selective, not on the basis of potential abilities, but on the basis of economic ability.

There are several reasons why parents cannot themselves be expected to provide for their children the necessary preparation for occupational life in such fields as farming and homemaking, as well as in some other fields where sons or daughters follow in the footsteps of their parents. In the first place, parents often do not realize that their children are growing up and are ready to learn how to do many of the things the parents are now doing. They are willing to teach their children how to do the chores and some of the simpler manipulative skills needed about the farm, the home, or other places of work. But parents typically do not recognize when youth have reached the age where they can participate in managerial decisions in order to learn how to make such decisions. For example, the farmer each year decides what crops he will grow in each field for a crop rotation. He decides how much he will expand his livestock enterprises and how far he will go in increasing his indebtedness. He will often announce to his son the results of his decisions. It will seldom occur to him, however, that the son could share in making the decision in order to learn how to make it or that he could actually teach the boy how to weigh alternatives and factors and find answers to managerial problems. In other words, parents often possess a great *deal of "know how" which it may never occur to them that they should pass on.*

Of course, it is also true that many parents do not themselves actually possess enough "know how" in this technological age. Many persons have failed to keep abreast of new developments in their occupation. Likewise, there are those who, although they are skilled in an occupation, do not possess the ability to pass this skill on to others. The method of transmitting vocational skills from parents to son and daughter does have some value, but it can not be relied upon to do the whole job any more than to provide all the general education for youth. This method has an additional limitation in the fact that many sons and daughters do not want or are unable to follow in the footsteps of parents.

Some parents, definitely in the minority, claim not to want practical values in the high-school curriculum, as illustrated by the following statement from a parent:

> My complaint against this current demand [for vocational education] is first that training youth to earn a living is not education; second that a specific training may keep the youngster from earning the best kind of living; and third that it can't be done in school anyhow.
>
> I assume that it is not a legitimate function of an educational institution to use the funds of society as a whole to fit certain particular individuals to earn a living through advantages which are not universally enjoyed.[4]

This individual advocated the pick-up method as a solution for developing competence in an occupation. School people occasionally take a similar view or do not face the issue realistically. Some may be prone to conclude that because some companies operate well-organized training programs, all occupations could be learned in this way. There is a tendency, too, for some school people to rationalize their own academic past and to place a "halo" over the kind of school offerings with which they are familiar from experience.

In sharp contrast to this attitude are the findings from a survey made by *Fortune*. In this survey attention was called to a shortage of many kinds of skilled labor in the United States, and recommendations were solicited as to what agency or organization should take the lead in training a new supply. The public school system received the largest number of votes, almost twice as many as the next highest, which was private industry.[5] Thus, it would appear that there is a demand on the part of the public for the assumption of a greater part by the schools of the task of training a new supply of workers.

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[4] George McGranahan, "For My Son I Want an Unpractical Education," *Nation's Schools*, 37: 25–6, April, 1945.

Another study in one state revealed the belief by representative citizens that the secondary school is society's institution designed to prepare youth for their life work at the same time they are being prepared as citizens of a democracy. Over 40,000 people living in sixty-five different communities responded to a questionnaire form which included this question: "All of us want our children to have a good education in the three R's, health, and perhaps some science. Beyond this, what would you insist on and be willing to pay for even if it should add to your school tax bill?"

There were nine areas listed, including history, music and art, athletics, public speaking, driver education, home and family living, school clubs, foreign languages, and *instruction in a vocation* (job skill) *of the pupil's choice*. The last item was checked most frequently and consistently by a relatively large percentage. Over 75 percent of the more than 40,000 taxpayers of the state responding to this question said they would "insist on and be willing to pay for" vocational education as a part of the school program.[6]

A public opinion poll in San Diego, California, conducted along the lines of the 1950 Roper National School Survey, involved 1500 interviews. It was found that over ninety-five percent of the people believed that their public schools should provide job training for high-school students and adults. Only two percent were opposed and three percent did not know.[7]

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[5] "The Fortune Survey," *Fortune*, 19: 107, April, 1939.

[6] Otis Crosby and Philip J. Proud, "What Citizens Really Think About Schools," *The Nation's Schools*, 127: 61–63, Nov., 1953.

[7] C. W. Patrick, "Public Opinion Poll Supports Vocational Education," *American Vocational Journal*, 27: 28, March, 1952.

In a questionnaire in one state sent to 3500 rural leaders, of which nearly a thousand were returned, approximately eighty percent of the respondents indicated that vocational agriculture and home economics were the most valuable subjects to youth in rural areas. A more recent nation-wide study of more than 1200 public school systems reveals that more schools have increased their offerings in the vocational field than in any other field in the curriculum.[8]

In view of evidence such as that revealed in these studies it can be assumed that development of programs of vocational education and practical arts will meet general community approval. This is further borne out by a nation-wide study of over 1200 public school systems in which it was found that of all curriculum fields vocational education had received a greater increase in curricular emphasis than any other.[9]

In regard to the question of whether we can afford this costly type of education in community schools, there are at least two easily supported answers. The first one is that we can not afford *not* to provide it. Every day citizens are paying the cost of inefficiency in workers and the consequent waste of materials, time, and human effort. The economy upon which our standard of living rests is dependent upon efficient workers. We must, therefore, keep up the supply of skilled workers. The second is that vocational education, more than any other area of education, pays for itself in many ways. The increased earning and producing power of trained workers will be a tremendous factor in building a strong economic base in the community for the support of the community schools. Herbert Hoover, when Secretary of the Department of Commerce, made these significant statements:

> We in this country believe that education pays for itself and is worthwhile and if this is true of any sort of education it is certainly true of vocational education—that it pays for itself. . . .

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[8] "The Effects of Mobilization and the Defense Effort on the Public Schools," *Research Bulletin of the National Education Association*, XXX, No. 3, Oct., 1952, pp. 92, 96, 97.

[9] J. Dan Hull, "Trends in High School Subject Enrollments," *School Life*, 34: 7, 14, Oct., 1951. See also, A. D. Graves, *American Secondary Education*, Boston, D. C. Heath Co., 1951, pp. 226–27.

> Men of affairs the country over are being impressed with the fact that the cost of training labor on the job is one of the great industrial costs, but they know that the cost of inefficiency and lack of training is very much greater, and that labor must be trained whatever the cost. If they or the community do not provide such training they can not compete with the foreign producer whose labor is vocationally trained at public expense, nor can we, as a nation, adequately supply our own needs for the product of labor if we neglect to provide for the training of labor.
>
> The cost of providing this training is just as properly a charge upon the public revenue as any other form of education. . . .
>
> The cost of such training certainly should not be put upon the individual worker unless we are prepared to abandon our traditional policy of providing free education and equality of opportunity for our youth. We can not in fairness continue to provide specialized education free to the few who propose to enter the professions, while denying education to the many for commoner vocations. . . .
>
> A community must pay either for the cost of training labor or for the much greater cost of inefficiency of labor, and inefficiency of labor means inevitably general industrial and commercial inefficiency.

It was pointed out in the previous chapter that there may be a number of other agencies engaging in quasi-educational work or providing services which have educational potentialities. The school is the one institution in the typical community, however, that has personnel qualified to give systematic instruction. And systematic instruction is needed to supplement the work experiences available in the community.

The school dare not ignore its responsibility for systematic instruction leading to vocational competency lest it lose its opportunities in this regard. For example, two Federal agencies which were an outgrowth of the Depression were the National Youth Administration and the Civilian Conservation Corps. Both of these agencies engaged in activities locally which were of a quasi-educational nature and closely related to vocational education and vocational guidance. Their creation was not alone a way of dealing with depression-born problems. It also was, to a substantial degree, a reflection of the failure of communities to provide work experience and opportunity for youth to become trained for and to find suitable occupations—thus becoming self-supporting. If the schools of the future fail to provide adequate programs of vocational education and practical arts, we should not be surprised if the people seek these programs through some other agency.

Community Activities as a Basis for the Practical Arts

As soon as the teachers of a school start correlating in-school activities of pupils with out-of-school activities of the people, it will quickly become apparent to them that people spend a great deal of time working with materials of production. There is a very large segment of these activities which is not necessarily a part of the vocation of the individuals who engage in them. For example, many people have hobbies involving the use of tools, such as making articles of furniture, miniature trains, fishing equipment, or conveniences for the home. Others may do gardening or home repair and construction in off hours. For this reason it is logical to expect that an educational institution which is to fulfill the criteria of the community school not only should seek to provide instruction that will utilize this interest in working with materials, but also should enlist the educational assistance of persons who have developed skills along these lines.

In all communities many persons will be found who, in connection with their vocations, work with materials. In industry these materials are changed through the application of mechanical equipment and technological processes. In farming, materials are used as seed, feed, fertilizer, or soil to produce other materials. Materials are used by the office worker, the tradesman, the store clerk, and the homemaker. It was pointed out in the preceding chapter that pupils in schools can and should study materials, learn how persons at work use materials, equipment, and processes, and actually get first-hand contact with them. Thus, a true community school should have many courses in its curriculum which will involve the study and use of community activities centered around the producing and consuming of material goods useful to man.

We are living in a "push-button" era in which people are far removed from those who perform the creative activity of designing and producing the life necessities as well as the many gadgets and conveniences which make life enjoyable. It is, therefore, highly important that people do not become oblivious to the developments which have taken place, bringing these wonderful things into being and into common, everyday use. The creative, inventive spark must somehow be kept alive. Materials in the local community should be studied and used in the creative activity of the people. The community school should be concerned with teaching people to understand and use materials and occupational facilities available to them for the perpetuation of the creative spirit and the enrichment of their lives.

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PART II

Vocational Education and Society

Chapter 4

VOCATIONAL EDUCATION AND DEMOCRACY

Work in a Democracy

Democracy in this country, rightly conceived, is a way of living. It is a great faith in man's right to reach the limits of his capabilities. It assumes no pre-determination of the good life for some and the poor life for others. In a democracy we do not separate our work from our culture.

In a democracy working is regarded as an activity of a good citizen. As Keller has said, "The most respected and respectable single word in the American language is 'work.' "[1] Naturally, some kinds of work are held in higher esteem by people generally than are others. One of the tasks of the schools is to help prospective workers to gain an insight into the social usefulness of their work. Another is to develop a better understanding by all workers of the why and how of their everyday activities.

Work is a common denominator of man in a democracy. Theodore Roosevelt once said, "The average man must earn his own livelihood. He should be trained to do so, and he should be trained to feel that he occupies a contemptible position if he does not do so." This statement aptly epitomizes the relationship between man and his work in our democracy. Work is regarded not only as a privilege but also a responsibility and a blessing.

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[1] Franklin J. Keller, *Principles of Vocational Education*, Boston, D. C. Heath and Co., 1948, p. 21.

Work in the Lives of People

A person's occupation frequently is the basis of one of the first questions put to a new acquaintance when striking up a conversation. What happened on the job is the first thing discussed when the husband returns home, and if there are guests for dinner the conversation eventually swings to what each does for a living and the associations which the work naturally suggests. The work you do is usually the first topic in quiz programs and other inter-personal programs on the radio and television. The popularity of such programs is an indication of the natural interest of the general public in the people's working life, including some details of what people do in their occupation.

In rural pioneer days social contacts depended on proximity. Today, in the age of swift transportation and easy communication, the basis of friendships of adults is often contacts at work or other activities which may be associated with one's occupation. Instead of going next door for a game of bridge, we go across town to the house of someone who is interested in the same things we are and who frequently is engaged in a similar occupation.

Adults have demonstrated many times that the work in which they are engaged provides the chief motivation for continued learning or for resumption of study. For example, the farmer who wants to improve his farming usually is interested in instruction leading to increasing his efficiency. Likewise, the office worker who is interested in improving bookkeeping skill might be interested in a course in machine calculation. As a matter of record, courses of a vocational nature are the most common ones chosen by adults. When adults who are engaged in similar vocations meet they naturally fall into exchanges of experiences in their work. These exchanges may prove vocationally profitable and sometimes lead to the setting up of more formal instructional sessions.

Recent studies of older adults have revealed some very enlightening facts about persons who have been "retired." Most persons do not actually wish to be relieved of the activity which has been a part of their life work. This feeling is not solely or even largely because of the wages or salary. Work, to the adult, provides a degree of prestige for him. When someone no longer depends on him to do the work to which he has become accustomed, when he is no longer recognized as one who can do something important that others want him to do, he loses status. He frequently loses morale. Conversely, work appears many times to have a therapeutic effect on people, providing them with self-assurance, self-respect, and a healthy outlook on life. Much attention is now being given to helping older adults to find new outlets for productive and profitable activity suited to their capacities.

The effect on people of not having work (unemployment) was widely observed during the depression of the early 1930s. The deleterious effects of prolonged idleness, probably as much as the economic needs of people, prompted the government to establish the agencies of WPA and CCC. Many of the educational activities provided through these agencies were readily accepted by the unemployed and the underemployed. The average person almost invariably is interested in anything that will improve his employment status or his standing or rating in the occupation.

Most young people can learn from working. Good work habits, cooperative attitudes, and such important traits as dependability, resourcefulness, and initiative often result from having regular chores and other work responsibilities to discharge. Many kinds of work experiences are not as readily available to youth in the home and community today as they were before the advent of highly organized business and industry, and the growth in use of machines to perform work in the home, on the farm, and in the factory. Employers and educators are increasingly seeking ways of working together to provide work activities for youth from which they learn. Details of school-initiated programs of learning through working are given in Chapter 17. One of the challenges to modern-day educators is that of helping youth to obtain these educational values from work.

Vocational Education as Education for Work

When a person learns *how* to work he is receiving vocational education. In acquiring marketable skills the individual discovers what he needs to know, what he needs to be able to do, and how well he must be able to do it to meet standards set by his employer, by the consumer, or by society. In addition to acquiring this knowledge and ability, he acquires habits and attitudes necessary for success on the job. He learns what he must do to qualify for a better job or to advance in the work in which he is engaged. The way people should be taught their life work is very well summarized by Keller:

> People should learn to work wherever they can do so most economically in terms of time, energy, and money and where the evironmental influences will be such as to make them desirable social beings as well as skillful workers. Such places of work-learning should be accessible and available to everyone. They should be called schools.[2]

From the school's point of view, then, vocational education is *teaching people how to work effectively*. This succinct definition applies to all fields of endeavor even though in some the worker may not be thought of as being employed—at least for compensation. An example is homemaking. It is, however, productive activity.

Some people enjoy their work so greatly that they would rather be "working" than doing anything else. The workers Hoppock studied in his research on job satisfaction derived more satisfaction from their work than from their leisure.[3] What is one man's work may be another man's recreation. So we may say that vocational education takes place when an individual or group of individuals acquires information, an understanding, an ability, a skill, an appreciation, an interest and/or an attitude, any or all of which enable him to begin or to continue in activity of a productive or service nature and to which he intends to devote a major portion of his non-leisure time in order to provide food, shelter, clothing, education, entertainment, and other necessities and wants for himself and his family members.

[2] *Ibid*, p. 59.

[3] Robert Hoppock, *Job Satisfaction*, New York, Harper and Bros., 1935, p. 16.

It may start at a very young age, and can and does continue throughout life. In the strictest sense vocational education includes professional education. Professional education is differentiated merely by requiring more advanced and technical training. Since this book deals with vocational education on the community level it will not include a consideration of professional education.

Equality of Opportunity to Work

One of the watch words of our democracy is opportunity—that is, not identical opportunity but equal opportunity for all to achieve to the limits of their capabilities. One of the functions of education in a democracy, therefore, is removing the obstacles or impediments to the attainment of this ideal.

In a democracy all people should have a right to work and an equal opportunity to choose the work which they do. That is, their choice of vocation is not determined for them by their being born the sons or daughters of workmen of a particular type, a custom traditional in many countries. Naturally, individuals are limited in the realization of their ambitions by economic handicaps or barriers, or by lack of aptitude or employment opportunities. It is a well-known fact among counselors and other school people that youth's choices are often unrealistic and that youth needs much information and skillful counseling in regard to the choices of life work. But the opportunity to make the choice is a basic tenet of the democratic way of life and must be preserved.

The opportunity to advance in one's chosen work must likewise be preserved. It is this possibility which lies ahead of every worker in America that is one factor that has helped this country to achieve the highest production per man of any nation and of any time in history. When the "top is left open" there is a strong likelihood that individuals will continue to study their work and to try to improve it. It is this desire to rise in work status that is part of the need and justification for vocational education of the adult worker.

Finally, it is a basic tenet of democracy that opportunity to choose work, to prepare for it, and to advance in it should not be limited by race, religion, political belief, or sex. Not all persons can qualify for the same jobs. But the opportunity should be there to be taken advantage of in proportion to the individual's potentialities.

Equality of Opportunity for Vocational Education

The democratic ideal in education envisions opportunity not only for the more able but also for average and mediocre pupils. Misguided youth who seek college preparation and are failing academically are not by the same token good prospects for vocational courses of any and all types. But the school that is democratic takes these youth as it finds them and provides activities that not only will be of interest to them but also will help uncover hidden talents and potentialities for a life of usefulness and service. To provide for all youth the *same* educational opportunities does not give all youth *equal* educational opportunities. Equality of educational opportunity has not been reached, yet it has been more nearly approached in this country than in any other in the world. It has been more nearly attained in general education than in vocational education.

Society has concerned itself more with the provision of opportunity for collegiate vocational education of a technical character (professional education) than it has with comparable opportunities in the secondary schools and for out-of-school youth and adults. In tax-supported institutions of higher education we find opportunities for youth of nearly every state to prepare for law, medicine, dentistry, forestry, nursing, teaching, and many other professions. Society rates these professions so essential that millions of dollars are annually spent to house, staff, maintain, and improve these programs of professional education. It is, of course, true that restrictions are placed on admission to these programs. These restrictions, however, are set up largely by the institutions and the professions themselves. The standards are set in order to assure that students who avail themselves of these opportunities can profit from them; can be adequately provided for in the available laboratories and classrooms; have the capacity for developing essential professional competencies; and will, in numbers, somewhat closely approximate the number of employment opportunities available and the number needed by society. Society has not been equally concerned with support for vocational education of a sub-professional type, although in some states a great deal is being done through state or regional schools and through state aid to local districts for vocational education. But many local communities, even with financial help available, have failed to provide programs of vocational preparation which they could give in some occupational fields.

One of the attendant developments to the failure of local and state communities to do as much as might be done to democratize opportunities for education in the commoner vocations has been the growth and development of private vocational schools. These schools have provided, in larger centers of population, for the education in occupations less commonly provided in local or state schools and for types of vocational education for which there is sufficient demand to make it profitable for these schools to operate. Private vocational schools do not contribute materially to the democratic goal, however, since only those who are financially in a position to do so may enroll, and since only those living in larger centers of population have access to them. Youth and adults in rural areas and smaller towns have been particularly handicapped by this inaccessibility. Our society has provided opportunity for students to receive a general education in its public schools. It is not in line with democratic principles to force them to enroll in private schools in order to get preparation for occupational life.

Earlier in this chapter it was pointed out that one of the goals of democratic peoples was equality of opportunity to work. While the attainment of this goal is dependent upon many conditions, one of the more important ones is that the individual is prepared for the occupation to which he seeks entrance. Thus, equality of opportunity to work may be and often is dependent on vocational education.

Vocational education and guidance will help to make it possible for the individual to choose an occupation realistically and to choose one that is in line with his interests and potential ability. Vocational education is necessary in order to enable the individual to advance in this chosen occupation. The total education which society provides will not be democratic unless that part of it that we recognize as education for work is provided on a democratic basis.

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Chapter 5

SOCIETY'S NEED FOR VOCATIONAL EDUCATION

"The wealth of the world is created by the work of skilled hands on raw materials."—Dwight D. Eisenhower

The economic and social well-being of any society is dependent upon the abundance of goods and services made available for its people. Here in America we have the highest standard of living of any country in the world. It has been estimated that with less than seven percent of the world's people, we occupy but seven percent of the land area of the world, yet we produce about fifty percent of the world's goods and services. This ability to produce could be a major factor in the cold war against communism and in the survival of democracy. It is the basis for building the good life among our people. The present and prospective needs for and availability of skilled workers, the effect of technology and mechanization on the need for and training of skilled workers should be carefully studied by persons responsible for development of educational programs if their schools are going to meet the needs of society.

Trends in the Supply of and Demand for Skilled Workers

We may first consider the broad classification of work engaged in by our civilian population. In 1950 the largest groups of workers were found in manufacturing, retail trade, and agriculture (including forestry and fishing). Sizable numbers were also found in transportation, communication, and other public utilities; in professional and related services; and in personal and domestic services. These and other groupings are shown in Table I. These data are important to consider since there is a fairly common misconception of these distributions. It is commonly thought, for example, that there is a much higher percentage of persons employed in manufacturing than the census data show. Actually, the percentage in mining and manufacturing markedly declined from 1919 to 1953.[1] On the other hand, the number employed in the field of wholesale and retail trade tends to be underestimated by many. Actually, the percentage of the nonagricultural employees so employed increased from 17.4 percent in 1919 to 21.2 percent in 1953.[2]

Table I

MAJOR INDUSTRY GROUP OF EMPLOYED CIVILIAN PERSONS IN THE U.S. BY PERCENTAGES—1950[3]

GROUP	PERCENT
Agriculture, Forestry and Fishing	13.7
Mining	1.5
Construction	5.5
Manufacturing	26.2
Transportation, Communication and other public utilities	8.1
Wholesale trade	3.8
Retail trade	16.3
Finance, Insurance and Real Estate	3.3
Business and Repair Services	2.2
Personal and Domestic Services	6.8
Amusement, Recreation and related services	0.8
Professional and related services	7.5
Government	4.4

As we consider the development of programs of occupational preparation, we may note a different classification. Such a classification brings out the differences in degree and kind of skills involved in the occupational field, in a general way. Table II gives this breakdown as of 1940, 1945, 1950, and 1953. The assumption is that there should be some similarity between the kinds of opportunities for occupational preparation in the several fields and the occupational grouping within the labor force. The groups designated as laborers, both farm and non-farm, are largely unskilled groups, or at most semiskilled. Likewise, the group designated as operatives and kindred workers largely includes persons engaged in repetitive work which can be learned in a relatively short time. The public secondary schools do contribute to the preparation of individuals for the group referred to as professional and semi-professional by providing college preparatory sequences. There are also some workers in other groups

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[1] "Employment—Non-Agricultural Establishments, 1919–1954," *Road Maps of Industry*, No. 985, Nov. 12, 1954, New York, The Conference Board, 1954.

[2] *Ibid.*

[3] A. J. Jaffe and Charles D. Stewart, *Manpower Resources and Utilization*, New York, John Wiley and Sons, Inc., 1951, p. 149.

Table II

EMPLOYED WORKERS IN THE UNITED STATES CLASSIFIED BY MAJOR OCCUPATIONAL GROUPS, 1940, 1945, 1950, and 1953 (Percent) [4]

MAJOR OCCUPATIONAL GROUP	1940	1945	1950	1953
Professional, technical, and kindred workers	7.5	6.1	7.6	8.8
Managers, officials, and proprietors, except farm	8.3	8.6	10.9	10.0
Farmers, farm managers, foremen, and farm laborers	18.6	16.0	12.0	9.5
Clerical and kindred workers	10.4	13.0	13.1	12.7
Sales workers	6.5	5.0	6.6	6.0
Craftsmen, foremen, and kindred workers	11.2	12.7	12.8	14.4
Operatives and kindred workers	18.5	22.4	20.3	21.0
Service workers, except private household	7.3	7.7	8.1	8.4
Private household workers	4.9	3.3	3.3	3.1
Laborers, except farm and mine	6.8*	5.2	5.4	6.0

* Totals do not equal 100 because of rounding.

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[4] Adapted from a table by Arthur S. Flemming, Director of Office of Defense Mobilization in *Manpower Resources for National Security*, Office of Defense Mobilization, Washington, D.C., U.S. Government Printing Office, Jan. 6, 1954, p. 45.

who are expected to have abilities strictly of a managerial type or of a highly technical nature for which the public secondary schools cannot provide occupational preparation, at the high school level. Some of this "vocational-technical education" can be provided by the community colleges. School programs of vocational education could be provided, however, for most of the remaining members of the occupational groups.

One of the employment trends of this century often pointed out is the steady decline in the percentage engaged in farming. The total dropped from 31 percent in 1910 to 21 percent in 1930, to 12 percent in 1950, and to 9.5 percent in 1953. However, this must not be interpreted to mean that less emphasis could be placed on training persons for farming. The drop in percentage is due in part to the increase of the total labor force during that time. From 1940 to 1950 alone, the labor force increased from slightly over 57 million to nearly 65 million. In 1870 it was only 12.5 million. The actual number of persons employed in agriculture has not declined very much. The 6,448,343 farm operators of 1920 had only been reduced to 5,379,250 in 1950.[5] This is a drop of less than 17 percent, although the portion of the labor force engaged in agriculture dropped 50 percent. Much of the drop in the proportion of the labor force engaged in agriculture is in the farm-labor classification rather than in the farm-owner, tenant classification. Farm operators dropped from 15.5 percent of the labor force in 1920 to 7.8 percent in 1950, while farm laborers dropped from 9.4 percent to only 4.1 percent. Farm mechanization undoubtedly has been largely responsible for this decline in farm laborers during this period.

In general, it can be said that the proportion of the labor force classed as clerical workers, as well as those engaged in skilled trades and related occupations, has been increasing. It will be noted in Table II that craftsmen, foremen, and kindred workers amounted to 14.4 percent of all workers in 1953. The Office of Defense Mobilization cites three factors that have increased the importance of skilled manpower: (1) increase (over 3.5 million) in craftsmen, foremen, and kindred workers since 1940, an increase especially in the number of mechanics and repairmen; (2) a building boom, creating jobs for a million more in the building trades; and (3) increase in the number of foremen. The office points out that these increases account for nearly 90 percent of the increase in skilled crafts, 1940 to 1950.[6] The proportion classed as unskilled workers has remained fairly constant, while the proportions designated as craftsmen and operatives have increased. The prediction of the number of persons who should be trained for a given occupation is not easy. Suggestions for estimating training needs at the community level are given in Chapter 25.

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[5] *Fifteenth Census of the U. S., 1930, Agriculture, General Report*, Vol. IV, 1932, p. 162 and *1950 Census of Agriculture, General Report*, Vol. II, 1952, p. 113.

Attention is called again to Table I which shows 16.3 percent of the labor force engaged in retail trade and 3.8 percent in wholesale trade, or a total of 20.1 percent in distribution. If the selling jobs included in some other categories such as finance, insurance and real estate, and business and repair services were added it would appear that about one-fourth of the labor force is engaged in distribution of goods or in services. A source primarily concerned with education for this type of job estimates that 30 percent of the labor force is so occupied. It points out that while population has doubled since 1900 and the greatest increase of any other occupational group for the ensuing 50 years was 250 percent, the number of workers in distributive occupations increased by 577 percent.[7] That this is a field entered by large numbers of youth is also pointed out by one reporter who says that 130,000 youth 18–19 years old and 150,000 youth 20–24 years old enter employment in distributive occupations every year.[8]

One of the characteristics of this century is the development of large-scale business and industry. Because of this development many school people gain the impression that employment in these large concerns is the likely destination of all graduates and drop-outs from their schools, and that because many of these large concerns train their own employees, the school need assume little responsibility in this regard. But while youth might find organized training for jobs available in some of the larger companies—located for the most part in heavily populated centers—we must remind ourselves that most businesses and industries are relatively small. This fact is pointed out very clearly by Churchill with data from the U.S. Department of Commerce showing trends since World War II.

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[6] *Manpower Resources for National Security*, *op. cit.*, p. 49.

[7] *You Have a Stake in Distributive Education*, prepared and distributed by the California Association of Distributive Educators.

[8] Adam Brucher, Jr., "More Than Just a Job," *N.E.A. Journal* 43: 91–92, Feb., 1954.

> Some 55 percent of the 1945–51 over-all increase in employment was in [business] firms [of all types] with less than 20 employees. . . . This group accounts for roughly 95 percent of all firms and about one-fourth of all paid employment. . . . The number of concerns with over 10,000 employees was about the same (240) in early 1945 and 1951. . . . Aggregate employment in these companies in 1951 was about 4 percent lower than the 7.5 million persons employed during the war. . . . In 1951, three-fourths of the firms in business had fewer than four paid employees (roughly two-fifths of all firms had no paid employees at all) and less than one-tenth of one percent employed 1,000 or more. . . . Firms with less than four employees constitute an important share of all operating business.[9]

On January 1, 1951, there were actually 1,436,000 firms engaged in retail trade that were employing less than 4 persons each and 286,000 manufacturing firms employing less than 50 persons each. These constituted 89.2 percent of all manufacturing firms.[10]

The growth of the factory system brought into American industry large numbers of youth possessing little or no skill who were set to doing routine and repetitive tasks. One of the consequences of this trend was the reduction in numbers of apprentices in skilled occupations. During this time the large-scale migrations from Europe brought many craftsmen to this country, thus making it unnecessary for employers to train their workers through the apprentice system. As a result, in the period from 1860 to 1930 the ratio of apprentices to journeymen markedly declined. Not until the passage of the Fitzgerald Act in 1937 and the inauguration of cooperative, school-and-employer apprentice training programs was this decline halted and a real effort made to provide systematic training for apprenticeable trades. The number of registered apprentices rose from 21,000 in the 1940s to nearly 235,000 in 1949. In 1953 there were about 162,000 registered apprentices, in addition to a substantial number on unregistered programs.[11] Even so, the Office of Defense Mobilization in 1954 concluded that, "There are not now in training enough apprentices to replace during the next three years the losses through deaths and retirements of machinists, tool and die makers, molders, patternmakers, boilermakers and millwrights." [12] It has been estimated by the U.S. Bureau of Apprenticeship, the Immigration and Naturalization Service, and the Office of Education that about one-quarter million new journeymen are needed annually to replace normal losses of skilled labor. Not more than two-fifths of these will have received some kind of formal training.[13] Few employers can give broad experience and instruction in all aspects of a trade. Schools can supplement such experience and training as an apprentice might receive on the job.

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[9] Betty C. Churchill, "Size Characteristics of the Business Population," *Survey of Current Business*, 34: 15–24, May, 1954.

[10] *Ibid.*

The Dilemma of the Consumer in Buying Skilled Manpower and Service

A bit of reflection by the average person on the efficiency of people who produce for him, sell to him, or perform services for him would be quite revealing of the need for vocational education. The average salesperson in many a store is inefficient because he does not know the product he is selling or the interests and needs of the customer. He may not be familiar with production standards to which the merchandise has been subjected. Merchandise may be graded with a system which he does not understand.

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[11] *Manpower Resources for National Security, op. cit.*, p. 50.

[12] *Ibid.*, p. 51.

[13] National Manpower Council, A *Policy for Skilled Manpower*, New York, Columbia University Press, 1954, p. 212.

The dilemma of the consumer in finding trained automechanics, radio repairmen, and other service persons is well known. The training of persons available for office positions leaves much to be desired. Exceptions, of course, can be cited. The range in skill of persons whom the average person hires for work is great. A study of the help-wanted sections of the daily newspaper will usually reveal many jobs requiring training and experience for which there apparently have been no applicants.

Although farmers are not hired directly and do not ordinarily sell directly to the consumer, the problem is similar. The range in ability is also present and is often very great. Some farmers are extremely competent as managers and as persons operating complicated machines and performing skillfully many other farm operations. On the other hand, many farmers are so low in proficiency that they may actually be operating at a loss. The only reason they continue may be that they are living on the land which they work on a subsistence basis. In one state, for instance, in 1951 the highest labor income among farmers keeping accounts in coöperation with the state agricultural college was $20,564, while the lowest labor income was a loss of $6,477! The productive man-work units—a measure of over-all farming efficiency—varied from a high of 2,097 to a low of 140. Farming is not a licensed trade or profession with fixed standards for entrance.

The Need for Food and Other Consumer Goods

The enormous natural resources of this country and the relatively small population have combined to dim the realization of the people that our capacity to produce might some day be insufficient to supply the needs of future increased population. Statisticians report that there is a net gain of one person to the population of the United States every 12 seconds. Whereas in 1940 the population stood at approximately 133 million, on January 1, 1955, it reached an estimated 163,900,000. It is further estimated that if the population increase continues at this rate, by 1960 the total will be about 175 million. There appears to be likelihood that this increasing rate of growth will continue. The birth-rate rose from 18 per thousand in 1940 to 25 per thousand in 1952. All of the increase in population in the last few decades and the necessary increases of the future have, or will have taken place without any significant increase in arable land and other natural resources. In fact, these resources are being depleted at an alarming rate.

In the face of these facts and opinions, the percentage of the labor force represented by operating farmers fell by 1950 to a new all-time low of about eight percent. And, as indicated in the preceding paragraph, these farmers vary greatly in their proficiency. Each operator is called upon to do a better, and a still better job in supplying food and fiber for more and more people. He must do this without depleting the soil upon which future generations depend.

The key to the problem of sufficient food and fiber for future generations is education in abilities needed by farmers. The fact that a shortage of food and fiber has not developed already is not alone due to development of synthetic fibers and to development and use of labor-saving machines in agriculture, but also to the ability to use newly discovered, efficient practices in production, management and marketing. The Office of Defense Mobilization points this out:

> During the past four years farmers have increased production about 70 percent with only 11 percent more harvested acres and with 20 percent fewer hours of labor.
>
> Modern farm technology, however, required a higher degree of ability and operating skill . . . any productive farm must maintain workers with management skill and a knowledge of soils, crops, fertilizers, pesticides, animal husbandry practices, and the mechanical ability to maintain and operate diverse types of machines and equipment.[14]

An example of what might be accomplished through training is furnished by a record of accomplishment from the state of Mississippi which, in 1950, had the lowest per capita income of the forty-eight states. The state supervisor of agricultural education reports that 38,057 farmers had been enrolled in the institutional-on-farm training program for veterans up to that time. He estimated the increased net farm income to these farmers from 1946 to 1950 as 150 million dollars, based upon farm account records kept by these farmers. During this time 10,033 farms had been purchased, over 9 million dollars' worth of building constructed, and 13 million dollars worth of repairs made to buildings. Many new practices had been adopted and yields increased.[15] Comparable reports could be made for many other states.

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[14] *Manpower Resources for National Security, op. cit.*, p. 52.

The consumer goods, the purchase of which is made possible by such increased earning power, are and can be available only as machines and trained men and women are available to process and manufacture, and to transport and distribute them. These and other workers, farmers, and homemakers are dependent upon raw materials and "know how" to meet their needs for food, clothing, shelter, transportation, recreation, and other needs. Vocational education is a primary need of our society.

The Needs of the Home in Modern Society

The needs of the home and of homemakers are closely tied to trends of employment and to the economy of the country. The home has become more of a "consumer unit" than a production unit. This is in part due to the steady increase in the proportion of workers who are women. In 1900 this was only 18.3 percent. In 1930 it was 22 percent. In 1949 it was 28.2 percent.[16] Furthermore, more than one woman of every five was working in 1950.[17] The effect of all this on the home is apparent when we realize that from 1940 to 1953 there was an increase of ten percent in the proportion of married women working outside the home. In April, 1953, one of every four married women was a member of the labor force. And of the women married in the 1930s and who 23 years later had children of high-school age or older, one of every three was employed outside the home.[18] In 1949 one of every four working women had children under 18 years of age. The proportion of women between 20 and 34 years of age in the labor force has declined, however, while the proportion 35 years and over has increased. The 1940 data show that women whose husbands were in the $1,000 to $1,500 wage bracket were twice as likely to be working as those whose husbands were in the $2,000 to $3,000 bracket.[19]

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[15] A. P. Fatherree, "The I.O.F. Program: Shortcut to Improved Farm Living," *American Vocational Journal*, 27: 4–6, April, 1952.

[16] Shartle, *op. cit.*, p. 344.

[17] Jaffe and Stewart, *op. cit.*, p. 133.

The trend toward making homemaking a "part-time" vocation is just one of the many having an effect upon the stability and cultural contribution of the home in our modern society. The Mid-Century White House Conference on Children and Youth estimated in 1948 that "about two million children under eighteen years of age were living with neither parent, and nearly four million with only one parent." [20] Broken homes are caused by many factors which will not be discussed at length here. But since the home is the most important institution in society it is pertinent to recognize the need for its preservation and strengthening. The function of the school is not to provide an antidote for instability, unrest, or frustration in the home. It is important that the total school program be so organized as to develop constructively competences in home and family living. More than that, it is also important that instruction be provided for parents and future parents in specific areas of the homemaking vocation for their direct benefit and the ultimate benefit of society.

Some of the problems of the home to be dealt with in education become apparent as we note the thinking of leaders in the field of homemaking education. For example, Spafford, writing in a bulletin for administrators of secondary schools, mentions some of the problem areas in homemaking:

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[18] Bureau of the Census, U.S. Department of Commerce, *Marital Status of Workers: April 1953, Current Population Reports, Labor Force*, Series P–50, No. 50, Washington, D.C., U.S. Government Printing Office, Nov. 1953, pp. 1–2. Also Women's Bureau, U.S. Department of Labor, *The Status of Women in the United States, 1953*, Women's Bureau Bulletin No. 249, Washington, D.C., U.S. Government Printing Office, 1953, pp. 7–8.

[19] David Kaplan, "Women in Industry," *American Vocational Journal*, 25: 3–4, 8, May, 1950.

[20] *Adapting the Secondary School Program to the Needs of Youth*, National Society for the Study of Education, Fifty-Second Yearbook, Part I, May, 1950, Chicago, University of Chicago Press, 1950, Chap. 1, p. 13.

> Vocational programs designed to prepare for homemaking have an important part to play in secondary education. Such programs should give major attention to human relationships, child development, child rearing, and the management aspects of homemaking. They should deal with the complex problems which face young people in the early years of marriage and for which so few feel adequately prepared today.
>
> More high school home economics departments need to face squarely the kind of education that will best fit young women, who will very soon be homemakers, wives, and mothers for their jobs. They are anxious to succeed at this job. The future welfare of society depends upon their success.[21]

The details of the needs mentioned in the foregoing are many and varied. There is need for skills in family economics; in selecting, improving, beautifying, and keeping in repair the home itself; in caring for the ill member of the family; in operating and keeping in repair the many household appliances; in developing wholesome recreation and family relations; in selecting and preparing foods to meet dietary needs; and in selecting and keeping in condition the clothing of the family and many other related needs.

There has never been a time when homemakers were more needed in our society than today. The demands upon the time of members of a family outside of the home, the complex and varied nature of these activities, and the rapid changes in the material components of the modern home all combine to make homemaking a most significant vocation and a major factor determining the future of our society.

Machines and the Work People Do

The development and introduction of machines in the home, on the farm, in the factory, in the stores and other places of business, and in trades and professions are well known. Many persons regard mechanization as the most significant single development of the twentieth century. Yet, in spite of this, there has been a misinterpretation of the effect of this trend on the labor force and particularly upon the need for specific vocational skills in trade, industry, and agriculture. The machine is looked upon as a device to save labor, and, to be sure, it is primarily that. It is an error, however, to think that the machine displaces skilled labor or reduces the need for skilled labor, rather than unskilled labor. The fallacy of this interpretation will become clear as we look at the record.

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[21] *Home Economics in the Secondary School*, National Association of Secondary School Principals, Bul. 35, Oct., 1953, p. 24.

A recent analysis made by the United States Department of Labor, Bureau of Apprenticeship shows the trend of the male skilled labor force from 1910 to 1950. It will be noted from Table III that the male skilled labor force increased from 14.5 percent of the total non-farm labor force in 1910 to 18.6 percent in 1950. The proportion designated as semi-skilled rose steadily from 11.2 percent to 20.1 percent in the same period, while the unskilled dropped from 18.2 percent in 1910 to only 8.5 percent in 1950. These statistics make it apparent that the need for occupational skills within our economy is increasing. The increase of the group of semi-skilled or routine workers has taken place at the expense of the unskilled rather than of the skilled labor. In an analysis of these same trends the U.S. Office of Defense Mobilization concludes:

Table III

PERCENTAGE OF MALE SKILLED, SEMI-SKILLED, AND UNSKILLED NON-FARM LABORER GROUPS IN EACH CENSUS YEAR, 1910–1950 [22]

LABORER GROUP	1910	1920	1930	1940	1950
Skilled	14.5	16.7	16.4	14.8	18.6
Semi-Skilled	11.2	13.3	14.4	18.1	20.1
Unskilled	18.2	17.7	16.1	11.4	8.5

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[22] United States Department of Labor, Bureau of Apprenticeship, *The Skilled Labor Force*, Technical Bulletin No. T-140, Washington, D.C., U.S. Government Printing Office, April, 1954, p. 13.

> The relative losses sustained by the skilled trades in earlier years, resulting from the introduction of mechanization in some industries and the breaking down of skilled trades in other industries, have been offset in more recent years by the growing importance of the skilled repair, maintenance, and installation occupations.[23]

Many examples could be given of machines that have displaced unskilled labor. The mechanical shovel, the mechanical ditcher, and other earth-moving equipment have released thousands of workers whose chief qualification was strength to operate a shovel or a scraper. Yet new skilled occupations emerged in the operation of these machines, in the servicing of them, and in the more technical jobs of designing and fabricating them. The mechanical beet harvester is eliminating the employment of transient, unskilled labor previously employed in the back-breaking work of lifting, topping, and hand-loading of sugar beets. The cotton picker displaces unskilled labor. Where unskilled labor is plentiful and cheap, the cotton picker has not become a common farm machine. But in areas where labor can obtain more profitable employment in semi-skilled occupations it has come into more common use.

The introduction of the machine does not generally reduce the total demand for workers but usually increases it. The horse and buggy produced a modest demand for blacksmiths, liverymen, and wagon-makers. But the numbers pale in significance compared to the automechanics, the service station operators, the automobile salesmen, and the thousands employed in the manufacturing industry. In contradiction to a popular conception that mass production reduces the demand for highly trained persons, America's pioneer and genius of mass production, Henry Ford, whose company, even before World War II, employed more than 15,000 skilled mechanics in addition to others directly engaged in the production of cars, said nearly two decades ago:

> A cardinal principle of mass production is that hard work, in the old physical sense of laborious burden-bearing, is wasteful. The physical load is lifted off men and placed on machines. The recurrent mental load is

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[23] *Manpower Resources for National Security, op. cit.*, p. 44.

> shifted from men in production to men in designing. . . . The need for skilled artisans and creative genius is greater under mass production than without it. . . . It has been debated whether there is less or more skill as a consequence of mass production. The present writer's opinion is that there is more.[24]

An interesting example of the effect of the introduction of the Hollerith machine in the office of the U.S. Census Bureau in 1890 is given by Jaffe and Stewart. In 1880, 1500 clerks processed and tabulated the census returns by hand operations. By 1890 the population had increased 25 percent. However, in spite of the use of the Hollerith machine the number of clerks employed to operate the machines in processing the data was actually increased by 100 percent. This was because the job was all done in a shorter span of time, but for a greater volume of statistics involving many more types of analysis.[25] In their summary of the effect of the "iron man" on the labor force, Jaffe and Stewart conclude that:

> . . . for any given product, the immediate effects of a labor-saving invention generally is to reduce the skill level of the workers affected. In the long run, however, these less-skilled workers tend to be replaced by automatic machines. As a result the remaining working force tends to consist largely of skilled workers capable of servicing the machines which produce the products; these workers, however, have totally different skills from those of the original skilled workers, even when the ultimate product remains largely unchanged.[26]

This conclusion is corroborated by Diebold, who has devoted a great deal of study to the theory of automatic operation and the process of making things automatic. He points out that this application of technology to industrial and business activity, which he calls *automation* "will not progress as far as the proponents of a completely automatic society have predicted and . . . the changes will not occur as quickly as most forecasters have led us to believe." [27] In regard to the future demand for skilled labor he predicts that:

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[24] Henry Ford, "Mass Production," in *Encyclopaedia Britannica*, London, The Encyclopaedia Britannica Co., Ltd., 1952, Vol. 15, p. 40.

[25] Jaffe and Stewart, *op. cit.*, p. 190.

[26] *Ibid.*, p. 259.

[27] John Diebold, *Automation*, New York, D. Van Nostrand Co., Inc., 1952, p. 139.

more striking than in agriculture. In early days of this country about 90 percent of the population was engaged in farming. Today the average person on the farm produces enough for himself and 14 others. Corn yields are 45 percent higher now than they were forty years ago, in spite of soil depletion practices, but largely through adoption of improved varieties. The potato acreage is only about half what it was fifteen years ago, but yields today are twice what they were then. The hen of today lays fifty percent more eggs than the hen of 1935.[32] It is said that whereas in 1830 it required 58 hours to produce an acre of wheat, in 1954 it was being produced in less than two hours in the great plains; that an acre of corn which required nearly 34 hours to produce in 1855 can now be grown with four hours of labor.[33] Another dramatic achievement of farmers through application of technology is detailed by one writer:

> A short time ago the farmer figured that it took from 10 bushels to 12 bushels of corn to produce 100 pounds of pork. Today one-half that much corn plus 50 pounds of a high-protein concentrate containing the additional vitamins, minerals and antibiotics, will do the same job. Less than a generation ago it was considered satisfactory to produce a three-pound chicken in 12 weeks with 12 pounds of feed. Today we produce a three-pound broiler in 10 weeks with 9 pounds of feed, a clear saving of two weeks in time and one-fourth of the total feed.[34]

In order for a steadily increasing population to continue to be well fed by a decreasing number of producing farmers on the same amount of land, a more rigorous application of technology is demanded. The phenomenal record made by agriculture to date would not have been possible without mechanization. Two examples of the extent of mechanization are the number of tractors and trucks. The number of tractors on farms increased from 240,083 in 1920 to 3,609,281 in 1950, a 1400 percent increase. During the same period the number of trucks on farms increased from 139,169 to 2,206,670, more than a

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[32] Byron T. Shaw, "Today's Research Shapes Tomorrow's Farming," *The Agricultural Education Magazine*, 24: 172–73, 187, 189, Feb., 1952.

[33] Kenneth Huddleston, "The Farm Equipment Manufacturer and You," *County Agent and Vo-Ag Teacher*, 10: 14–15, Aug., 1954.

[34] J. E. Sams, "Increased Population *vs.* Food Supply," *American Farm Youth Magazine*, 19: 6–7, Oct., 1953.

1400 percent increase.[35] More recent data show that from 1950 to 1953 the number of tractors on farms increased 185 percent and of trucks 150 percent.[36] The number of grain combines on farms increased from about 4,000 in 1920 to about 900,000 by 1952. Electrification of farms has proceeded at a very rapid rate in the past two decades until at present nearly 90 percent of farmers are now using electricity and in many states practically all farms have electricity for use on the farm and in the home. The use of electricity on farms is 10 times what it was in 1935.

One indication of the effect of mechanization on farming is given by an opinion poll conducted in 1952 by the Curtis Publishing Company. Replies to a questionnaire were received from 1,535 out of 2,030 of the nation's outstanding farmers. Asked to rank various factors contributing most to the advancement of their farming operations, 32.4 percent named "improved farm machinery," 30.8 percent "farm electrification" and 20.7 percent "improved soil and water conservation." [37] The operation, adjustment, and unspecialized repair of farm machinery and equipment involves mechanical skills which must be developed.

The impact of technology on other occupations is just as relevant, though perhaps not as spectacular. However, Diebold predicts further increases in worker productivity of goods and services through automation.[38] Changes in construction occupations brought about by prefabrication, in service industries by mechanical manipulation of data in market surveys, and in agriculture by hydroponics are forecast. The development and use of new machines have modified the activities of the office worker and the store clerk. The development of plastic materials, synthetic fabrics, and other new materials increases the amount of knowledge which must be possessed by the person who is engaged in distribution to the people. This development also steps up the knowledge required by persons who are rendering direct services and who are using some of the materials resulting from this increased application of technology. All this has important implications for education in the schools.

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[35] *Fifteenth Census of the U.S.*, 1930, Agr. General Report, Vol. I, V, 1932, p. 226, and 1950 Census of Agriculture and General Report, Vol. II, 1952, p. 226.

[36] Albert P. Brodell and Albert R. Kendall, "More and More Farm Machines," *The Agricultural Situation*, 38: 3–4, Aug., 1954.

[37] "How Leading Farmers Rank Agricultural Developments," *Farm Electrification*, 7: 5, July–Aug., 1953.

[38] Diebold, *op. cit.*, p. 148.

Vocational Education and the National Defense

Ever since the great depression of the early thirties many people have periodically become concerned about a surplus of food and other commodities. They have sometimes become greatly concerned because there were a few million bushels of potatoes or other food allowed to go to waste. A close look, however, at supplies of food and other consumer goods in times of scarcity or plenty will show that a slight abundance need be reduced very little in order to create a noticeable scarcity. The percent of surplus or the percent of scarcity need not be great to be noticed. By the same token, abundance or scarcity can easily be exaggerated by the average person. It is important to realize this when considering our national defense. A switch from a cold war to a hot war or a rapid step-up of armed forces and military activity could quickly change a surplus into a scarcity. Our experience in both world wars bears this out. Although there was a scarcity of some commodities before Pearl Harbor, after war was declared virtually everything was in short supply, although practically no food or other consumer goods had been destroyed.

One commodity in which we became painfully aware of a shortage was skilled labor. We did not have enough skill to produce the needed food. We lacked welders, electricians, machinists, and carpenters as well as stenographers, mechanics, and nurses. We were at war with a country, Germany, which for years had maintained one of the most efficient systems of vocational training the world had ever known. The nation with the best trained manpower has a tremendous advantage in any conflict. And for some time the outcome of the conflict was in doubt. Not until a greatly stepped-up program of vocational training financed and directed by the Federal government was well under way was there any assurance that this country would be able to produce goods and services needed to enable us to do our share of winning the war. Many people said that never again should this country, with its abundant resources, be caught in such an embarrassing situation.

Today this country is in a situation where long-range plans must be made for the defense of the free world against the forces of communist aggression. It has been estimated that more than 20,000 technically trained specialists per year will be needed for the army alone. The former U.S. Commissioner of education has been greatly concerned with the problem of supplying trained manpower sufficient for our needs:

> Our long-term mobilization-for-defense program envisages an economy capable of supporting a substantial armed force without sacrificing our normal living standards. American industrial strength rests now and will rest in the future largely on the skill of its workers and their ability to maintain a high level of productive capacity. As this capacity increases, the processes of production and business become more complex, a larger and larger number of jobs must be filled with workers possessing special skills.
>
> All this underscores the urgent necessity of strengthening the present system of vocational education in our public schools.[39]

This same conclusion was drawn two years later by the U.S. Office of Defense Mobilization after carefully analyzing available data from many sources concerning needs and the nature of training required:

> The occupations most critical to the national security require extended periods of training. It is therefore essential that programs of training be stressed.
>
> In the event of an emergency, our resources of highly trained manpower will probably be the ultimate limiting factor in our capacity for mobilization. These resources would be adequate to meet all National security needs only if properly distributed between and efficiently utilized in military and supporting civilian activities.[40]

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[39] Earl J. McGrath, "Vocational Education and National Welfare," *American Vocational Journal*, 27: 3, 34, Jan., 1952.

[40] *Manpower Resources for National Security*, *op. cit.*, p. 53.

The Congress undoubtedly had in mind the need for trained manpower resources when in 1954 it increased the Federal funds for vocational education under the George-Barden Act by five million dollars. This was an increase of 26.6 percent, the largest increase of this kind since 1937 when the George-Deen Act was passed.

Our society has a right to expect that its workers will acquire skills to apply to our country's abundant resources. It is increasingly being realized that by so doing our nation should be in a better position to defend itself against aggression and to preserve the freedoms which it cherishes. In addition to this goal of society, as detailed throughout this chapter, ours is a society that is characterized by a rapidly increasing population, a wide variety of occupations, swift changes in these occupations resulting from technological advancements, and a rising standard of living. School people and citizens should work together to formulate programs for the development of occupational skills to apply to our resources and to help to bring into being the good life that is possible for everyone.

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PART III

The Nature and Contribution of the Practical Arts

Chapter 6

THE PRACTICAL ARTS— A PART OF GENERAL EDUCATION

What Is the Meaning of "The Practical Arts"?

The curriculum of the community school, whether it be organized as a subject curriculum, a correlated curriculum, a fused curriculum, a broad-fields curriculum, a core curriculum, or a combination of these will include some activities planned as a part of the general education program which are appropriately termed practical arts. These activities may take the form of classroom, shop, laboratory, or outdoor experiences built into the daily program of instruction for each pupil, or they may be treated more casually and offered as a part of the extra curricular program of the school. In most schools the practical arts activities are made available in both forms—curricular and extracurricular.

The term practical arts has been used in educational literature for some time, although general educators have used it less frequently than those writing on the subject of vocational education. The reason for this difference may be that vocational educators have found it convenient to have a term for those activities which are planned as a part of the non-vocational phases of education, yet which frequently deal with vocational subject matter. The four most frequently discussed practical arts—industrial, household, agricultural, and business—correspond to the major occupational groups and therefore form the subject matter for vocational education. A term to distinguish the non-vocational activities from their vocational counterparts is essential for this book. The term practical arts will, therefore, be used to refer to *those phases of general education dealing with the organization, materials, processes, and products of agriculture, business, industry, and the home and with the contribution of those engaged in these fields*. The pupil learns through his experiences with tools and materials and through his study of man's relationship to the world of work. The practical arts most frequently included in the programs of both the elementary and the secondary schools are: (1) industrial arts, (2) household arts, (3) agricultural arts, and (4) business arts. Each of these has many subdivisions which might be offered as subjects or units at different stages of the child's development. Agricultural arts, for example, might include in the elementary grades a study of the relations of the farmer to other people, home gardening, purchasing and consuming agricultural products, or identification of plants, animals, and farm machines. On the secondary level it might add to these landscaping, small-scale poultry raising, horticulture, soil conservation, the study of opportunities in agricultural occupations, and scores of other subjects.

Not all of the practical arts are known by the designations given here. Agricultural education as a practical art is sometimes referred to as *general or non-vocational* agriculture. In the business field the term most frequently used to designate the practical arts work is *general business*. In home-making education the terms *household arts* and *general or non-vocational homemaking* are sometimes used, but the phrase *home and family life education* is now thought to characterize the work more accurately. Industrial arts, until several decades ago, was called *manual arts*, or *manual training*, although the purposes then were somewhat different from those of our modern industrial arts programs.

Each of the practical arts mentioned above is a curriculum area rather than a subject or course, and all of them are parts of the general education of all children and youth. Agriculture, business, homemaking, and industrial education as practical arts, along with driver education, another art which has been added to the curriculum more recently, will be discussed in greater detail later.

How Are the Practical Arts Related to General Education?

An attempt is made in Chapter 8 to describe the nature and purpose of general education. A brief definition at this point may be sufficient. It is that type of education designed to facilitate the general development of all individuals in relation to their personal, civic, and social responsibilities. This is not a new concept; in 1942 Johnson and others stated,

> General education is *general* in at least three respects:
>
> First, *general education is intended for everyone*—not merely for the select few who become scholars or who enter the professions. No longer will preparation for college entrance dominate the curriculum of the high school which is committed to the objectives of general education. The program of such a school will be planned to meet the varied needs of all of the young people of the community which it serves.
>
> Second, *general education is concerned with the total personality*—not merely with the intellect but with emotions, habits, attitudes. General education regards the student as a single unified being rather than a compartment of knowledge, one of feelings, another of beliefs. This means that specific general education programs must be defined in terms of what the learner is or does rather than in terms of course content or a body of knowledge.
>
> Third, *general education is concerned with the individual's non-specialized activities*. It consists of preparation for efficient living, no matter what one's vocation. This does not at all imply a lack of concern for vocational training. Since two of the responsibilities of every person are a contribution to society and the earning of his own living, general education should include the choosing of a vocation in relation both to one's own aptitudes and interests and to the needs of society.[1]

The practical arts meet the three criteria for general education given above. (1) They are intended for everyone—those going to college as well as those who are not, boys as well as girls. (2) They are concerned with the total personality—physical development, mental and emotional stability, habits and attitudes toward work and workers as well as skill in the use of tools and materials and technical understanding. (3) They are concerned with the individual's nonspecialized activities—the pupil preparing for a profession needs experiences in the practical arts as well as someone preparing for a career in agriculture, business, industry, or the home. Furthermore, they all need experiences drawn from each of these major practical arts areas. No matter how one looks at the practical arts, they are distinctly general education and should not be confused with specialized education for vocational purposes.

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[1] From *General Education in the American High School*, edited by Jacobson, Lindquist, Mackenzie, Spears, and Johnson, p. xii. Copyright, 1942, by Scott, Foresman and Company, and used with their permission.

Children, Youth, and Adults Need the Practical Arts

Throughout the community schools, from the kindergarten through the high school or community college, the program should be enriched by experiences in the practical arts. The practical arts have general values that apply to all levels, and in a continuous program these values are progressively intensive and are cumulative in their effect as the pupil advances in maturity. Through such a program the pupil:

Gains knowledge of the changes made in materials to meet the needs of society, of tools and processes used to effect these changes, of the constant adaptation of materials, tools, and processes to meet changing needs and conditions, and of workers and working conditions.

Grows in appreciation of the value of information regarding occupations as a background for a wise choice of a career, of the importance in modern life of tools, materials, soils, and processes, of the artistry of the designer, of the skill of a trained workman, and of the dignity and the satisfactions of productive labor.

Increases in ability to plan construction projects, to select and use sources of information, to handle tools and materials, to express with material things his individual interests, to use effectively his recreational time, to work and share as a member of the group, and to evaluate work and its products.

Develops attitudes of concern for safety practices, of consideration for workers in all fields, of concern for improved human relations, of regard for cooperation among the members of a group, and of respect for property.

Although the practical arts are largely manipulative in character they also afford content of an informative, technical, and social nature which contributes to a full and satisfying life. The practical arts meet real needs and satisfy impulses that are inherent in children, youth, and adults. Reading, discussion, observation, and experimentation are combined with participation in activities which may permit discovery and development of creative and artistic abilities. The projects selected for development and the topics chosen for study vary in complexity with the ages, interests, and needs of pupils.

Thus far the practical arts have been considered primarily from the point of view of subject matter forming a portion of the curriculum. They should also be thought of as method useful in all teaching and learning. A half century ago Dewey stressed the fact that people learn through doing (activity). Plato, Rousseau, Pestalozzi, and Froebel expressed the same idea. Dewey had this to say about practical activities in the curriculum: "We must conceive of work in wood and metal, of weaving, sewing, and cooking, as *methods of life*; not as distinct studies . . ." but "as instrumentalities through which the school itself shall be made a genuine form of active community life."[2]

He further stated,

> In educational terms, this means that these occupations in the school shall not be mere practical devices or modes of routine employment, the gaining of better technical skill as cooks, seamstresses, or carpenters, but active centers of insight into natural materials and processes, points of departure whence children shall be led out into a realization of the historical development of man.[3]

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[2] John Dewey, *School and Society*, Chicago, The University of Chicago Press, 1900, p. 27.

[3] *Ibid.*, p. 33.

It appears quite obvious that the practical arts have a great deal to contribute to the education of children, youth, and adults as a method of making other subjects in the curriculum more meaningful. Consequently, the practical arts can be viewed as subject matter which should be taught for its inherent values and as a method which can be used to facilitate the learning of other subjects and thereby aid in the growth and development of the child in the elementary school or the boy or girl in the secondary school.

The practical arts can also be considered from the point of view of individual needs or "developmental tasks" which must be achieved at different stages in the life of every individual. Much has been written about the needs of the individual, but Havighurst and his associates have combined the needs of the individual and the demands of society to form a new concept which he calls "developmental tasks." "These inner (individual) and outer (societal) forces contrive to set for the individual a series of developmental tasks which must be mastered if he is to be a successful human being." He defines a developmental task as, "a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks." [4]

The needs of the individual which must be served if education is to be of maximum assistance in the growth and development processes, are discussed in some detail in other chapters of this book. Let us consider for purposes of illustration a need which has its orientation in the physiological development of the child.

From infancy through old age the human body needs physical activity. It is a means of learning as well as a necessity for the growth and development of the body. At first it is activity with seemingly very little purpose. The baby kicks, moves his arms, tosses about, cries. Later he picks up an article, examines it, pulls it apart, and perhaps throws it. This impulse to activity cannot be inhibited without warping growth. It is a need which exists throughout life and should be met through the provision of appropriate activities as a part of the curriculum at all stages of the individual's development. As the child matures the need for activity becomes more specific and purposeful. The neuro-muscular coordination necessary to perform a complex function such as walking becomes a developmental task facing most children at about the age of nine to fifteen months. All through life the individual is confronted with developmental tasks involving the use of his body. Children and adults can be helped to achieve these tasks involving the growth and development of the body through practical arts activities.

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[4] Robert J. Havighurst, *Developmental Tasks and Education*, New York, Longmans, Green and Co., 1952, pp. 2–4, *passim*.

Other needs, such as the need for recognition and approval, the need to succeed, the need for acquiring a feeling of independence can be served through the practical arts. These and other needs are discussed in greater detail in Chapters 10 and 13.

All individuals pass through three periods of development; namely, childhood, adolescence, and adulthood. During each of these periods the individual has different needs and faces certain tasks which the practical arts can help him achieve. These will be discussed in later chapters.

Agricultural Education as a Practical Art

Earlier in this chapter the purposes of the practical arts have been discussed in broad terms. Now we will examine the specific aims and objectives of agricultural education as a practical art. The term general agriculture will be used to designate this phase of agricultural education, distinguishing it from vocational agriculture. Whereas the primary purpose of vocational agriculture is to prepare present and prospective farmers for proficiency in farming and farm living and to provide basic preparation for clearly related occupations, the principal objective of general or non-vocational agriculture is to fit those who are not now and do not intend to be farmers for their responsibilities which have a relationship to agriculture and to give all people a better understanding of the place of agriculture in our society.

All of us use the products of the farm and all citizens in a democracy help to make policies which affect our agricultural economy. Hamlin [5] lists twelve types of policies affecting agriculture which we all share in making; included among them are taxing policies, tariff policies, subsidies for agriculture, price-fixing policies, land use and soil conservation policies, production control policies and policies regarding the control of diseases, insect pests, and weeds. Whether it is the responsibility of the social studies or of the practical arts to educate people so that they can more intelligently meet their responsibilities as citizens in a society in which agriculture plays such an important part is not the issue. It is important that it be done somewhere in the school. Boys and girls who have the opportunity to work with the materials and processes of the farm will have a better understanding and appreciation of the products of the farm and will probably be able to make more intelligent decisions regarding policies affecting agriculture. Hamlin lists six other abilities which might be developed through general agriculture:

1. To choose for or against agriculture and country life
2. To utilize agricultural products wisely as consumers
3. To enjoy recreational opportunities available in agricultural pursuits, such as gardening, landscaping, livestock raising
4. To associate with farm people and share their interests
5. To enjoy the countryside and use its facilities
6. To find and use the information and assistance needed in whatever agricultural activities they may engage.[6]

An examination of this list will make clear the fact that general agriculture is intended for city children as well as for those living in rural areas. Children going to school in our cities are living in an environment conditioned by agriculture, and in the future they will help to make policies affecting farms and farming. Iowa once had a law requiring the teaching of agriculture in every elementary school. Another state still requires the teaching of agriculture in the seventh and eighth grades. However, state legislation making it mandatory that any subject be taught at a particular stage in the education of children is not recommended as the best way to improve the curriculum.

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[5] Herbert M. Hamlin, *Agricultural Education in Community Schools,* Danville, Illinois, The Interstate Printers and Publishers, 1949, pp. 70–71.

[6] *Ibid.*

The elementary school program can be rich with opportunities for boys and girls to gain insights about plant and animal life, to acquire a deeper appreciation for the products of the farm (food, clothing, and shelter), to enjoy the countryside and use its facilities, and to participate in activities resulting in the production of agricultural products. It is not implied that every elementary school should form a body of content labeled agriculture and teach it to all children. Instead, the usual elementary school subjects can be taught with proper regard for their agricultural relationships and uses. In rural communities the teacher should recognize the farming background from which the pupils come and build upon it. Problems in arithmetic, science, and geography can be drawn from the experiences of children living on the farm and in a rural community. But even in cities the teacher can arrange excursions to farms and farm-related businesses. Home activities in gardening, small-fruit culture, and landscaping may be encouraged. Many fairly large communities have active 4-H clubs, in which children of elementary school age are encouraged to participate. Agricultural activities are sometimes carried on in the classroom and on the school grounds. Growing plants, caring for animal life, making butter, splicing rope, tying knots, testing milk, spraying for fly control, seeding and caring for grass, planting shrubs, and holding a neighborhood fair are all experiences in which children are interested. Activities of this nature will also tend to motivate learning in other subjects.

On the secondary level general agriculture as a course so designated is found in relatively few community schools. In some cases agriculture is taught in connection with the study of biology or some other academic course. In other instances it is taught in "common learnings" courses. Some secondary schools attempt to meet the needs of boys and girls for experiences in agriculture through a club program or other activities planned to supplement the regular curriculum. A recommended program of general agriculture for the secondary school will be found in Chapter 16.

Agricultural education for adults who are not engaged in farming would seem important for the same reasons it is important in the elementary and secondary schools. Most adults have received, during their formal schooling, very little instruction in agriculture which will help them make intelligent decisions regarding policies affecting our agricultural economy. The casual education which non-farmer adults get through the newspaper, radio, and an occasional luncheon speaker is hardly adequate to enable them to perform their agricultural responsibilities. In addition many adults who are not farmers have a desire to learn certain skills and to acquire technical competence in some particular phase of agriculture with the intention of practicing it as a hobby or perhaps in preparation for a life of semi-retirement.

Business Education as a Practical Art

Business education includes those courses, activities, and units of instruction designed to meet (1) the common needs of all pupils in the area of business and (2) the vocational business needs of those pupils who desire to prepare for employment in business occupations. At this point we are concerned only with the former, *general* business education.

Those business activities and problems common to most people form the subject matter of the general business program. Just as all education should help the individual make the necessary adjustments to his environment, so general business education provides the basic knowledges, skills, habits, attitudes, ideals, and understandings for successful living in the business phases of one's environment.

The nature and functions of our personal and family business make it an integral part of daily living. Many of the problems which the individual faces and many of the decisions he must make are of a business nature. It is, therefore, reasonable to expect that the general education of all children and adults would include experiences designed to enable the individual to perform more effectively his personal and family business functions in our complex and interdependent economic life.

In the American Business Education Yearbook for 1949, general business education is defined as that training needed by all in order that:

> (1) each may carry on effectively his daily business activities centered about the home and his personal business life, (2) each may understand and participate in the business life of the community and of the nation as these affect him personally and as they relate to the well-being of every citizen, and (3) each may have an understanding of business as a factor in world relations and in world economic well-being.[7]

This definition broadens the scope of business education to include an understanding of economic problems on community, state, national, and world levels. In this respect business and agricultural education have much in common. The editorial staff of the Yearbook describes the general business program by listing two types of competencies it is designed to develop, (1) social-economic competencies and (2) consumer-business competencies. An examination of these lists of competencies would suggest that general business is concerned primarily with understandings and appreciations, many of which can be developed through activities. It does not emphasize the development of skills.

Business becomes a part of the life of every child at a very early age. When he receives a weekly allowance, makes purchases at the neighborhood grocery store, or deposits in a savings account a portion of his allowance, he is engaging in business activities and is faced with business problems. The elementary school program recognizes problems and needs of children related to business and makes provision for experiences designed to help children cope with them. As children grow and develop they become concerned about problems of production, transportation, distribution, communication, finance, taxation, capital and labor, and the internal organization, management, and control of American business enterprises. When these matters are revealed as problems and needs of the learner they should be incorporated in the curriculum.

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[7] *General Business Education*, The American Business Education Yearbook, Vol. VI, New York, The National Business Teachers Association and The Eastern Business Teachers Association, 1949, p. 5.

The business activities and problems of boys and girls in our secondary schools are many, complex, and varied. Business is an important part of the life of an adolescent when he purchases goods and services, some of which are purchased on the installment plan; when he applies for and accepts employment, even on a part-time basis, and has an income of his own; when he has a savings or checking account with a bank or uses any of the other many services of a bank; when he buys a government bond; when he finances the purchase of a motor scooter or an automobile and faces the risks and liabilities involved in such ownership; and when he buys an insurance policy. As they become problems in the life of each individual they also become appropriate subject matter for the curriculum.

The business activities and problems of adults increase in number, difficulty, and complexity. This is particularly true when a person enters into a partnership in a family unit. The way an adult conducts his personal and family business affairs when he is inadequately prepared for it may be and often is disastrous to the individual and tragic for his family. Recently there appeared in a mid-western newspaper an editorial, titled, "Should Greek Scholar Also Be Able To Handle Checkbook, Income Tax?" The editor made the point that all people, regardless of vocation, need at least a rudimentary knowledge of business and that the majority of college graduates today lack an understanding of practical everyday business information.

Education for everyday business competency for everyone is one of the vital and indispensable parts of education for living.

Homemaking Education as a Practical Art

Homemaking, like agriculture, business, and industrial education, is taught in our schools with two different purposes: (1) as general education with major emphasis upon developing insights, appreciations, attitudes, skills, and understandings important in home living, and (2) as specialized education for the vocation of homemaking. Since this chapter deals only with the practical arts, we will concern ourselves here with homemaking education as it is related to general education. It may be known by any one of several different names, such as home and family living, family living, everyday family living, or personal and family living. Since it is general education it is designed for everyone—men and women as well as boys and girls.

The basic aim of education for home and family living is to help the individual to live a more useful and satisfying personal, family, and community life. Although home and family living education is an offshoot of home economics and household arts it is quite different in nature and purpose. Home economics places the emphasis on technical knowledge and skills used in the home; education for home and family living on the other hand does not exclude the study of foods and clothing, but it does stress the competencies involved in getting along with individuals—parents, brothers, sisters, husband, or wife—and learning a pattern of democratic home living that can be carried into community relationships. Where instruction in family living is provided in special courses it is usually taught by the home economics teacher or her modern counterpart—the homemaking teacher. Van Horn explains the role of the homemaking teacher and at the same time defines family life education when she says:

> The present-day home economics teachers who are well prepared and adequately oriented undertake to assist family members of all ages participate more effectively in family experiences. They usually function in one of three ways: (1) to help individuals, families and communities recognize the persisting values of family life, (2) to help individual families use family resources intelligently in the light of these values and their unique problems, (3) to encourage communities to try to deal more effectively with those social conditions affecting family life that can only be changed through cooperative action. Family life education is concerned with family living and the basic physiological, psychological, and sociological factors that determine its quality. The purposes of family life education are achieved through the contribution of many courses,

such as biology, psychology, anthropology, home economics, sociology, music, and mental hygiene to mention a few.[8]

Since nearly everyone lives in a home as a member of a family unit, the need for education to assist the individual in making his adjustments to this phase of life is obvious. Furthermore, the need is a continuous one, since home and families are dynamic and ever changing and since the responsibilities and relationships of the individual to the family group change as he grows and matures. Therefore, the community school program should make provision for home and family life education beginning in the elementary school and extending through the secondary school.

In the elementary school the instruction is seldom given in separate subjects. It is usually correlated with other subjects or taught as part of comprehensive units in the social studies or other fields. In elementary schools using the social-living approach, problems connected with the home and family would undoubtedly be studied, since experiences of children are the point of departure.

On the secondary level units of instruction might be incorporated in existing courses, especially the "common learnings" courses. If the core curriculum idea is used, problems of home and family would most naturally be introduced. The teaching of this area by a specially qualified person using laboratory facilities provided for the purpose is the most common practice.

The needs of adults are generally met through short evening school courses designed to meet a specific need of a particular group.

Industrial Education as a Practical Art

Industrial education may be divided into two broad categories; namely, (1) industrial arts, which is a part of general education, and as such, designed to educate boys and girls (also, men and women) to live in a world which is basically industrial and technological, and (2) vocational industrial education designed to prepare the individual for gainful employment in an industrial occupation. Since this chapter deals with the practical arts, we are concerned at this point with the former—industrial arts.

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[8] Rua Van Horn, *Home Economics in the Program of Family Life Education*, The Indiana Teacher, Vol. 29, No. 9, May, 1948.

The purpose of all general education is to acquaint the student with the environment in which he must live so that he may be able to deal with it more effectively. One of the most pervasive aspects of our environment is its industrial and technological nature. It would seem appropriate, therefore, that the education of children, youth, and adults include experiences that will equip them to live more effectively in our industrial society.

Wilber defines industrial arts as "those phases of general education which deal with industry—its organization, materials, occupations, processes, and products—and with the problems resulting from the industrial and technological nature of society." [9]

The Industrial Arts Policy and Planning Committee of the American Vocational Association has sponsored the preparation of a comprehensive statement of industrial arts, which defines it as follows:

> Industrial arts, as a part of general education, does not have a set of objectives which industrial arts alone supports but it does make unique contributions to objectives which are common to the entire school program. Industrial arts is basically a shop or laboratory subject area; it emphasizes the use of tangible media and the problem solved usually results in concrete things; it provides for extensive expressional opportunities; it provides experiences in which the learning takes place through the sense of feeling or touch in conjunction with the avenues of seeing and hearing; it is conducive to informal class organization patterns; it derives its content from the world of work.[10]

The authors of this bulletin give a list of nine objectives for industrial arts which should be considered merely as suggestions, since "each industrial arts teacher should develop his own objectives in light of his philosophy of general education, the needs of his students, and the available facilities." The objectives listed are:

[9] Gordon O. Wilber, *Industrial Arts in General Education*, Second Edition, Scranton, Penna., International Textbook Co., 1954, p. 2.

[10] *A Guide to Improving Instruction in Industrial Arts*, Washington, D.C., American Vocational Association, 1953, p. 13.

1. *Interest in Industry.* To develop in each pupil an active interest in industrial life and in the methods and problems of production and exchange.
2. *Appreciation and Use.* To develop in each pupil the appreciation of good design and workmanship and the ability to select, care for, and use industrial products wisely.
3. *Self-realization and Initiative.* To develop in each pupil the habits of self-reliance and resourcefulness in meeting practical situations.
4. *Cooperative Attitudes.* To develop in each pupil a readiness to assist others and to join happily in group undertakings.
5. *Health and Safety.* To develop in each pupil desirable attitudes and practices with respect to health and safety.
6. *Interest in Achievement.* To develop in each pupil a feeling of pride in his ability to do useful things and to develop worthy leisure-time interests.
7. *Orderly Performance.* To develop in each pupil the habit of an orderly, complete, and efficient performance of any task.
8. *Drawing and Design.* To develop in each pupil an understanding of drawings and the ability to express ideas by means of drawing.
9. *Shop Skills and Knowledge.* To develop in each pupil a measure of skill in the use of common tools and machines and an understanding of the problems involved in common types of construction and repair.[11]

Industrial arts as a subject is found in most secondary schools. Frequently boys and sometimes girls are required to take industrial arts during seventh, eighth, or ninth grades; it is estimated that over 50 percent of all junior high school pupils in the United States are enrolled in industrial arts classes. On the senior high school level it is usually offered as an elective subject. The U.S. Office of Education statistics reveal that nearly two million pupils attend industrial arts classes daily. But industrial arts is more than a subject. The kinds of activities in which boys and girls participate when enrolled in an industrial arts course are frequently incorporated in an integrated elementary school program and in art, mathematics, science, and other courses in the junior and senior high school. Children at an early age are interested in exploring industry; they have the impulse to express themselves creatively through the use of industrial materials; and they have a need for physical activity resulting in muscular coordination. The list of objectives above will suggest many other needs faced by boys and girls of all ages, as well as adults, which can be served through industrial arts.

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[11] *Ibid.,* p. 18.

Other Practical Arts

Although the four practical arts just discussed—general agriculture, general business, home and family living, and industrial arts—encompass most school activities to which this term is generally applied, there are other practical experiences planned as a part of the curriculum which might be considered under this subject. One such field, which has been added to the curriculum of many secondary schools during recent years, is driver training. During the school year 1952–53 nearly 5000 secondary schools in the United States provided instruction in safe-driving practices to over a quarter of a million boys and girls. Instruction in driver training is frequently associated with industrial arts because it is concerned with the care and maintenance of a piece of mechanical equipment as well as its operation. Work in the handcrafts is another kind of practical arts which may be included in industrial arts or considered separately.

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Chapter 7

THE CHARACTERISTICS OF THE PRACTICAL ARTS AS COMPARED WITH VOCATIONAL EDUCATION

The Practical Arts and Vocational Education Have Many Similarities

The line between the practical arts and vocational education is obscure or even non-existent for many people. Some leading educators, who should know the difference, use the terms synonymously. It may be that those who believe all education is general deliberately use language which implies that the practical arts and vocational education are both general education. The practical arts and vocational education are similar in many respects, particularly in their more obvious features. The differences are what concern us, precisely because they are less immediately obvious. But let us first consider some of the similarities.

Both the practical arts and vocational education draw their subject matter from the world of work—the practical activities of everyday living. Because the source of content is the same, the areas of subject matter are parallel. Whether as a practical art or as vocational education, agriculture deals with farmers and their work. And so with business, homemaking, and industrial education.

Because the subject matter in any one of the practical arts is similar to that of its vocational counterpart, it is quite natural that the facilities used should be similar. For example, a laboratory in which the graphic arts are taught might be equipped much the same as a vocational print shop. The same facilities, indeed, are frequently used for both types of education, and where they are it is not uncommon to have the same instructor teach both.

The confusion is undoubtedly caused by the fact that these two areas of the curriculum are similar in several ways: origin of content, kinds of facilities, and to some extent the use of the same instructors in both areas. But the differences are more significant than the similarities.

Differences in Objectives

Since the practical arts are designed to serve a common need they are a part of general education. Practical arts activities are therefore concerned with the *nonspecialized, nonvocational* phases of living. Struck has listed the objectives of the practical arts as these:

> (1) to serve as a challenge and an inspiration to students who find joy in making objects with their own hands; (2) to vitalize the curriculum through handwork which is representative of the world of industry and crafts; (3) to develop insights and appreciations through a combination of manipulative work and of related reflective thinking; (4) to provide opportunities for creative self-expression and exploration through a variety of materials, tools, and processes; (5) to contribute to industrial intelligence and understandings through information, observation, and study of the working conditions in representative occupations; (6) to unify learning and integrate education through creative work that draws upon content from a number of areas of instruction, such as English, social sciences, physical sciences, literature, art, architecture, homemaking, agriculture, business, and industrial pursuits.[1]

Vocational education, on the other hand, is specialized education designed to prepare the future worker for initial employment, or to enable workers to improve and progress in their vocations. In theory it is given only after the individual has made at least a tentative choice of the vocation for which he wishes to prepare; in most instances it is given to the novice just prior to the time he will be employed in his chosen field, and to the employed worker when he needs it for improving his proficiency or to learn new skills.

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[1] F. Theodore Struck, *Vocational Education for a Changing World*, New York, John Wiley and Sons, 1945, pp. 26 and 27.

These differences in purpose and objectives form the significant basis for differentiation. In order to achieve the diverse objectives outlined above it is necessary to consider (1) differences in the most appropriate time for each, (2) differences in content and method, (3) differences in degree of concentration and specialization, and (4) differences in the desirable qualifications of instructors.

Differences in Chronology

The practical arts are nearly always taught in the elementary grades, sometimes as a separate subject in a laboratory or shop equipped for this purpose, but more often as activities used to motivate and to vitalize other subjects in the curriculum. Some of the practical arts, especially homemaking for girls and industrial arts for boys, are generally required in grades seven through nine, and in grades ten through twelve subjects in these areas are generally elective. Practical arts activities may also be carried on in connection with other subjects, particularly the "common learnings." Sometimes they are conducted as a club or other activity program of the junior or senior high school. Practical arts courses principally for avocational purposes are also provided for adults, usually in the evening school.

On the other hand specialized courses for vocational purposes are usually given in grades ten, eleven, and twelve of the high school, the community college (grades thirteen and fourteen), the adult day school, and evening classes in all types of schools.

Differences in Content and Method

In the practical arts the learner can be given considerable latitude in the choice of activities. Each pupil, in a sense, makes his own curriculum based upon his needs, interests, and problems. The choice of materials with which he works is broad, and the opportunities for learning are varied. In vocational education the content is determined by the requirements of the occupation being taught, and the learner, if he wishes to be a successful worker in that occupation, must acquire those skills, understandings, appreciations, and attitudes prescribed by workers in the occupation. In the practical arts the instruction must be flexible so as to meet the individual's needs; in vocational education the standards for instruction are prescribed for all who wish to prepare for a given occupation; these standards are based upon research and upon the practices of experienced workers in the occupation.

Differences in Degree of Concentration and Specialization

Any type of practical work on the elementary school level dealing with tools, materials, and processes of the work-a-day world is general education and therefore is most appropriately classified as practical arts. There is little or no specialized education in our elementary schools.

On the secondary school level we find both practical arts and vocational education, and it is here that the differences need to be more clearly recognized. In general, a pupil taking any one of the practical arts as a part of his general education will devote no more than one period each day to the subject. He may take one or more practical arts subjects each year beginning in the seventh grade and continuing through high school without taking more than one semester of work in any one of the practical arts subjects. Consequently, his experiences will be varied in nature and broad in scope.

On the other hand, the individual who has made a tentative occupational choice and is preparing for a career through the vocational offerings of the secondary school (excepting, possibly, the girl who is planning a career in homemaking) devotes a considerably larger portion of his time to this phase of his education. He would generally devote two to three periods daily to shop or laboratory work, and certain other courses in his curriculum, such as mathematics and science, might be directly related to the occupation for which he is preparing. Usually these specialized vocational courses are concentrated so as to come near the end of his full-time formal education and just prior to entrance upon employment. For example, the girl who plans to work in an office immediately after high school graduation will concentrate her vocational business training in the eleventh and twelfth years, while the girl who plans to attend the community college for two years after leaving high school may continue her general education through the twelfth grade and concentrate on the specialized vocational business courses in shorthand, typing, and accounting during the thirteenth and fourteenth years.

Differences in Qualifications of Instructors

Teachers of both the practical arts and vocational education need to have an educational background which will enable them to understand human behavior and especially how the individual learns; both must also be competent in the subject matter to be taught. The person engaged to teach the practical arts need not have acquired his knowledge of these fields through occupational experience, while the instructor whose objective it is to prepare young men for employment in these fields should have had a number of years of practical experience in the trade or occupation which he wishes to teach. In most states, this occupational experience is required for certification of vocational teachers.

The Practical Arts and Vocational Education Are Closely Related in Practice

Both the practical arts and vocational education are a part of every individual's complete education, and experiences in the practical arts precede and in most cases form a foundation for later specialized vocational education. In nearly every modern elementary school all children will have some experiences in practical arts activities. During the junior high school period the child will probably have additional experiences in the practical arts, which at this level are organized as courses, with the emphasis on the exploratory objective. As soon as this method of achieving the task of growing up is not available to most youth until they are eighteen years of age. Conscious preparation for employment through a vocational education program frequently is a suitable substitute.

2. *All youth need recognition and approval.* Many cannot get it in the more academic pursuits because they cannot successfully compete in these activities. A boy who has little aptitude for learning languages could hardly be expected to gain recognition in this field. Most of the general education subjects in the secondary school curriculum require skill in the use of words. Youth with less aptitude in verbal matters must get recognition in some other field. Sometimes it is athletics; frequently a club activity provides the opportunity; but experiences designed to prepare youth occupationally are filled with opportunities for youth to gain recognition.

3. *All youth need to have the opportunity for activity involving the use of their bodies as well as their minds.* They need physical activity in order to release surplus energy, to develop muscular control and coordination, and to exercise that creative instinct which is present in most youth and is subdued in many because of the limited opportunities for expressing their creativity, excepting through words. This does not mean that youth should not be taught to read, write, and speak effectively; it does mean that since school experiences in the vocational fields are generally based on activities that involve doing, youth less talented in verbal matters are not necessarily handicapped as much as they might be in academic subjects. The vocational offerings of the school frequently provide the opportunity for activity, physical as well as mental.

4. *All youth need to succeed.* The population of any secondary school represents a wide variety of interests, aptitudes, and talents. Therefore, it should not be expected that all can find success in a single curriculum. Vocational offerings will enable some youth successfully to pursue and develop their special skills and talents. Activities carried on in vocational shops and laboratories provide the opportunity to create, to explore, to build, and to invent in media other than words.

5. *All youth need to have a purpose and to feel that their educational program is contributing to that purpose.* Too frequently the subject matter with which the school is concerned has no real significance in the life of adolescent boys and girls. To the extent that this subject matter is identified with and related to the vocation of a student's choice (even though it be tentative and ever-changing), it takes on new meaning. The vocational aspects of the secondary school program can give meaning

and lend purpose to the individual's whole school program and thus be a tremendous motivating factor. With the individual's chosen vocation as the focus, vocational education can give the student a composite picture of the affairs of the world. Art, mathematics, science, communications, human relations—all find their place in the curriculum. Furthermore, with such a focal approach these subjects are no longer isolated fragments of learning but are integrated and made significant through their relations to the occupational goal of the learner.

6. *All youth need help in acquiring the skills of good citizenship.* Vocational education in the secondary school abounds with opportunities for experiences in citizenship. It is generally recognized that the best way to develop young citizens is to provide for youth experiences in which good citizenship is practiced. The school shop or laboratory is an ideal environment; here boys and girls can be taught to work together in a more informal atmosphere where tools and materials must be shared, where the rights of others must be respected, and where group activity can be planned and cooperatively carried out.

7. *All youth need a well-established set of moral and spiritual values in order to live a rich and abundant life.* Vocational education can make a significant contribution in the development of these values. Frequently, we assume that the values of goodness, truth, and beauty cannot be achieved while one is acquiring the skills of an occupation. Certainly one cannot deny the fact that a student preparing for business should study questions of right and wrong as related to business; a student preparing to be a chemist should study questions of philosophical truth as related to science; a high school student preparing to work in industry should study questions of right and wrong as related to labor unions.[6]

General and Specialized Education on the Elementary Level

Years ago, certain types of specialized vocational education were considered the proper province of the elementary school. For example, the elementary school was charged with giving instruction in agriculture, because farm children did not attend school beyond the sixth grade. Now, however, this cannot be considered adequate justification for specialized education in the community elementary school, be-the individual makes a decision, even though tentative, regarding his choice of a career he should have the opportunity to begin his specialized preparation for that occupation. But even while he is pursuing vocational courses, he might be engaged in practical arts work in a field other than the one for which he is preparing occupationally. For example, a senior boy might be taking a vocational industrial curriculum in preparation for a trade, but at the same time he might have a need for education dealing with a phase of home and family living.

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[6] Ralph C. Wenrich, "Education for Living and Earning," *The University of Michigan School of Education Bulletin*, Vol. 23, No. 7, April, 1952, pp. 102–4.

Vocational education and the practical arts are closely related in practice as we can see when we consider the use of the facilities of the school. In high schools which are too small to provide separate facilities for each of these two types of educational services the same facilities are frequently used for both. A typical example is a community with a population of approximately 50,000 which has a department of industrial education consisting of eight shops and laboratories which are used in the morning for vocational education purposes and in the afternoon for industrial arts classes. Similarly, agriculture, homemaking, and business education facilities are sometimes used both for general and specialized education.

In the illustration given in the preceding paragraph, the shop instructors teach their subjects each morning with vocational aims, and during the afternoon they teach the same subjects but for general education purposes. This is a pattern which is quite common in smaller secondary schools.

Supervision and administration of the two are closely related in current practice. On the secondary level the trend seems to be toward the comprehensive high school with offerings sufficiently diversified to serve the needs of all boys and girls. In this situation we have general education, including the practical arts, and specialized education, including vocational education, combined in one administrative unit. These two phases of education are also combined in the community college. Cities large enough to employ specialized supervisory personnel generally combine the supervisory functions relating to vocational education and practical arts for any one field in one person; to illustrate, the supervisor of general business would also provide the supervisory services for the vocational business program. And finally, on the central staff of a city school system it is quite common to have these functions combined in a director of vocational education and practical arts, who in many cities has the rank of assistant or associate superintendent.

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Chapter 8

RELATIONSHIP OF GENERAL AND SPECIALIZED EDUCATION IN THE COMMUNITY SCHOOL PROGRAM

General and Specialized Education

Since educators have given the terms "general education" and "specialized education" a number of different meanings, definition of the terms as they are to be used in this book is appropriate. Reference is made to Chapter 6 where general education was defined in relation to the practical arts.

The term general education is used by some educators to encompass all education. More frequently, however, it is used to designate those educational experiences designed to contribute to the general development of the individual. Good defines general education as "a broad type of education aimed at developing attitudes, abilities, and behavior considered desirable by society but not necessarily preparing the learner for specific types of vocational or avocational pursuits."[1] The term is sometimes used loosely to mean "cultural" or "liberal" education, but neither of these words carries the connotation intented by the authors.

The Educational Policies Commission of the National Education Association used the term "common learnings" in their report, *Edu-*

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[1] By permission, from *Dictionary of Education*, by Carter V. Good, editor. Copyright, 1945, The McGraw-Hill Book Co., p. 183.

cation for All American Youth—A Further Look[2] to mean those experiences in the curriculum that everyone needs regardless of what occupation he may expect to follow. General education will be used in this book to refer to that type of education designed to facilitate the general development of all individuals in relation to their personal, civic, and social responsibilities. For example, experiences designed to develop habits of healthful living satisfy a common need of all children and youth and therefore are appropriately considered general education; the ability to express ideas orally and in writing, an understanding of how our government functions and the ability to work with numbers are developmental needs of all children and youth and therefore are properly designated as general education. Just as general education has different meanings for different people, so it has more than one purpose; but one of the principal purposes is to provide a broader and more meaningful context for whatever specialization the individual enters later.

"Specialized education" consists of those experiences designed for individuals who have a particular interest in any specific field and wish to pursue study in that field beyond the level of general education. This work may represent only a temporary cultural or avocational interest or it may contribute to one's occupational preparation.

This book deals with both general and specialized education in that the practical arts are considered primarily for their general education values and specific vocational education is considered as an aspect of specialized education.

General and Specialized Education Are Parts of the Total Education of a Person

Both general and specialized education are essential if we are to make the maximum use of our talents in improving the welfare of our people and advancing our democratic society. General education forms the foundation for later specialization, but, perhaps more imcause today most young men who enter farming, as well as other occupations, do so only after completing at least several years of high school or, in some cases, a few years of college.

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[2] Educational Policies Commission, *Education for All American Youth—A Further Look*, Washington, D.C., National Education Association, 1952.

Even though the principal purpose of education on the elementary level is not to provide specialized occupational education, the school can increase a child's awareness of his economic environment and develop habits, attitudes and (to a limited degree) skills that will be useful to him during his work life. For example, it has already been noted in Chapter 5 that the program of the elementary school should help children understand the world of work through visits to farms, factories, and business establishments, as well as through books. In addition, it should help children interpret our economic system, develop pride in work well done, and foster good work habits and attitudes. All of these results and many others can be achieved through general education on the elementary level without detracting from (in fact, perhaps enhancing) other generally accepted aims of elementary education.

Although there is general agreement that the community elementary school should function primarily to meet the general or common needs of all children, it should also provide for individual differences among pupils by varying the curriculum. To the extent that this is done the elementary school will meet the need of children for specialized education as well as general education. The elementary program can be enriched by including art, handicrafts, and practical arts in the curriculum. Children are thus able to engage in a variety of handwork that will aid them in their growth, development, and learning. This can be done even in the one-room rural school as evidenced by the program of the Hanover School in Polk County, Iowa, which has an industrial arts laboratory.[7]

Illustrations of elementary school programs designed to develop competencies that will be of value to the future worker will be given in Chapter 11.

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[7] *Education in Rural Communities*, Fifty-First Yearbook of the National Society for the Study of Education, Part II, Chicago, The University of Chicago Press, 1952.

General and Specialized Education on the Secondary Level

As the child advances through the community school system the opportunities for more varied experiences increase. Even though the pattern of subjects followed in the seventh, eighth, and ninth grades is prescribed in part, there is ample opportunity, in most schools, for students to choose certain subjects from a list of electives. These elective subjects, many of them falling into the category of the practical arts, make it possible for boys and girls to explore further their special interests and aptitudes. Students may at this time develop a special interest in one of a number of fields such as art, music, agriculture, dramatics, or some mechanical pursuit. The purpose of this specialization may be avocational or vocational, or it may still be exploratory.

The pupil who elects debating is taking it as a part of his specialized program. If he is talented in this field he may decide to study law or some other profession in which this skill can be used. For him, debating contributes to his professional preparation just as typing might prepare someone else for work in an office.

General education on the secondary level should include services designed to help boys and girls make vocational plans that will lead to socially useful and personally satisfying lives. The selection of a vocation which will permit the full use of the individual's interests and abilities is a most important step in building a successful career. Few aspects of living make more difference in the quality of a person's life than the satisfaction derived from his daily employment. Satisfactory vocational adjustment cannot be expected if interests and abilities are not matched with job requirements.

Educators have given much thought to the question of what degree of vocational specialization should be encouraged at the secondary level and at what point it should begin. But since general and specialized vocational education are merely names given to two essential aspects of the education of every individual, and since most people do not go to school full time beyond the twelfth grade, it would seem that specialized education for vocational purposes definitely has a portant, it gives our people a common ground on which to build a strong America. Through the study of a common language, through an understanding of our American heritage, and through learning to use democratic practices by working and playing together, we are educating people for a life of mutual understanding and cooperation.

Specialized education is just as important as general education if we are interested in the full utilization of our human resources. The talents of many people have been wasted because education did not provide the opportunity to discover and develop the special abilities which they possessed. This is a responsibility of education that has always been present in a limited sense but will probably loom larger in the future.

General and specialized education are both essential ingredients of a total education. Educated people need both in order to live full lives, meet their responsibilities as citizens, and make their maximum contribution to the welfare of society. Although the word "culture" was used by Alfred N. Whitehead to describe that characteristic which we hope will be developed in the individual through general education, he expressed the idea of the need for both general and specialized education when he wrote:

> Culture is activity of thought, and receptiveness to beauty and humane feelings. Scraps of information have nothing to do with it. A merely well-informed man is the most useless bore on God's earth. What we should aim at producing is men who possess both culture and expert knowledge in some special direction. Their expert knowledge will give them the ground to start from, and their culture will lead them as deep as philosophy and as high as art.[3]

Thinking of only one of the purposes of specialized education, that of preparing people occupationally, the President's Commission on Higher Education stated a position that shows how specialized education and general education complement and enhance each other.

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[3] Alfred N. Whitehead, *The Aims of Education, and Other Essays*, New York, New American Library, 1949, p. 1.

> Although general education as the term is currently used, is concerned with the nonspecialized activities of living, it is by no means antagonistic to vocational education. Rightly conceived, the two are complementary. General education should contribute to vocational competence by providing the breadth of view and perspective that make the individual a more effective worker and a more intelligent member of a society of free men.
>
> It is urgently important in American education today that the age-old distinction between the education for living and education for making a living be discarded.
>
> The idea has long prevailed in our tradition, and it is still widely prevalent today, that a liberal education is one thing and that a professional or vocational education is another, that the two should be sharply differentiated, that one is preparation for labor, the other for leisure. . . .
>
> Much of the present day educational theory and practice is based on this fundamental misconception of the relationship between liberal and vocational education. The fact is that education is a unified process, developing in the student the qualities of mind and personality required of him both for making a living and for building a life. . . .
>
> To build a richly textured and gracious life is a good and desirable purpose, but few of us can make such a life without first making a living. Cultural values soon take wing when men cannot get and hold jobs.
>
> The ends of democratic education in the United States will not be adequately served until we achieve a unification of our educational objectives and processes. American education must be so organized and conducted that it will provide, at appropriate levels, proper combination of general and special education for students of varying abilities and occupational objectives.[4]

All Education Must Be Unified

Education must be unified not only in organization, administration, educational objectives and processes, but also in relation to the individual and learning. There is an abundance of evidence pointing to the fact that the individual functions as a total organism in relation to any learning experience and that the applications of learning may be, and usually are, multiple. The study that attempts to interpret portant, it gives our people a common ground on which to build a strong America. Through the study of a common language, through an understanding of our American heritage, and through learning to use democratic practices by working and playing together, we are educating people for a life of mutual understanding and cooperation.

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[4] President's Commission on Higher Education, *Higher Education for American Democracy*, 6 Vols., New York, Harper and Bros., Vol. I, pp. 61–63.

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[4] President's Commission on Higher Education, *Higher Education for American Democracy*, 6 Vols., New York, Harper and Bros., Vol. I, pp. 61–63.

General Education Contributes to Occupational Preparation

Every school should provide a variety of educational experiences, some to aid in the general development of the individual, and others to prepare the learner for an occupation or family of occupations. It is the *purpose* of any planned educational experience that determines whether it is general education or specialized education.

Educational experiences designed for general education purposes can and frequently do have vocational values which can be achieved more effectively if the teacher is aware of them and is consciously seeking to realize them. General education courses (and other experiences planned as a part of the general education of children and youth) can contribute a great deal to the occupational preparation of the learner. For example, the communication skills taught in elementary grades may be extremely important in terms of one's preparation for certain occupations. Simple number work is a part of the equipment needed in many jobs. The ability to get along with people is a general occupational need. Although these skills may help the learner to earn a living it must be recognized that the primary purpose is general education; in a sense the vocational values are byproducts but not to be thought of as incidental. These values are real and should be recognized. Learning experiences should be planned so that they will be realized.

Many high schools in small communities do provide specialized courses for occupational purposes, but most secondary schools in the United States are too small to offer courses in sufficient variety to meet the diversified occupational needs of adolescents. Youth attending high schools which do not have sufficient special personnel and facilities for vocational preparation must get whatever help they can from teachers of general education subjects. Even in larger communities, where provision is made for some specialized aspects of education, these general education subjects and teachers can and should make their contribution to preparation for living, which includes earning a living, if youth are to be fully educated.

Specialized Education for Occupational Purposes Has General Education Outcomes

Just as general education has potential vocational outcomes, so courses and experiences designed primarily to prepare people occupationally have general education values. Vocational experiences in school shops, laboratories, and classrooms as well as those provided through the use of community resources can make a major contribution in terms of general education. Obviously, the primary purpose of vocational education is to prepare people for certain occupations. In addition, vocational education on the secondary school level can help to satisfy some of the basic needs of youth that have their origin in the physiological, sociological, psychological, and cultural development of adolescents. A number of years ago one of the authors attempted to define these needs as follows:

1. *All youth need to be helped to feel that they are growing up.* To earn one's living is a positive symbol of the achievement of this urge, but the age at which youth can get employment is constantly rising so that

place on the secondary level. The degree of specialization will depend upon the individual's vocational choice and his need for general education in relation to his goal. For example, a student who is planning to enter one of the professions will get most of his specialized training at the college or university level, and therefore his secondary school preparation might well be largely general education. On the other hand, a student planning to enter the field of agriculture or business immediately upon graduation (or before) might better have a considerable amount of specialized education as a part of his secondary school program. Those who take the position that specialized preparation for jobs should be deferred until some time after completion of twelve years of general education either fail to realize that less than one-third of any age group go to college, or else they hold the erroneous notion that specialized education is needed only by those who plan to enter the professions.

The secondary school program should have both unity and diversity. Those common integrating experiences in general education designed to prepare individuals for life in the home and community should provide unity. But adjustment to life cannot be adequately made unless it is accompanied by a satisfactory occupational life. This suggests the need for diversity in the secondary school program if we are to meet the wide range of needs, interests, and aptitudes of boys and girls of that age.

General and Specialized Education on the College or Post-High-School Level

As the number of community colleges increases, more young men and women will avail themselves of an education extending beyond the twelfth grade. Consequently, it is logical to assume that some of the specialized aspects of education can be appropriately deferred until the thirteenth and fourteenth grades. Also, in our technological age there are many occupations that require more education—general and specialized—than can be crowded into twelve years. Then, too, there are other occupations which require greater maturity than that normally found in youth just completing the twelfth grade. For these and other reasons the community college can be expected to meet the occupational needs of increasing numbers of young men and women.

The community college should, of course, continue to serve those who are planning to enter four-year colleges and universities. Many of this group will want to specialize in some academic field or fields in preparation for work in a professional school. Those who take specialized courses in preparation for work in the community, as well as the college preparatory group, should have available to them experiences in the community college program which are of a nonspecialized nature—general education. So the community college program would be made up of both general and specialized education with the greater emphasis on the latter. The community college can also be made to serve the needs of adults in the community. This problem will be discussed in Chapters 19 and 20.

Since we are dealing with the problems of providing programs of vocational education and practical arts in the community schools, it is not within the purview of this book to discuss the relationship of general and specialized education on the college level. It should, however, be pointed out that insofar as colleges and universities are engaged in preparing some people for the professons, to that extent they, too, are providing vocational education, much of which is specialized.

Balance between General and Specialized Education

All through school, boys and girls receive both general and specialized education. On the elementary level most of the experiences are in the nature of general education, but the elementary teacher should recognize individual interests and aptitudes and should provide experiences through which children may explore and develop their special gifts and talents. On the junior and senior high-school levels the program becomes more varied, and many more opportunities for providing experiences in fields of special interest exist. The further the child advances through school the more opportunities there are to select courses and other experiences of special interest to him.

As children and youth progress through the community school system, discovering their special interests and aptitudes (as well as their limitations) some of them make at least tentative occupational choices and are ready to begin seriously their preparation for a vocation. At this point specialized education with a specific vocational goal begins, but learning experiences of a general education nature are still present. This phase of the development of the individual does not occur at the same age or grade level for all. For those who plan to go to work upon the completion of high school it generally occurs between the ages of 14 and 18; for those youth who plan to go to college this need may not become a pressing problem until later.

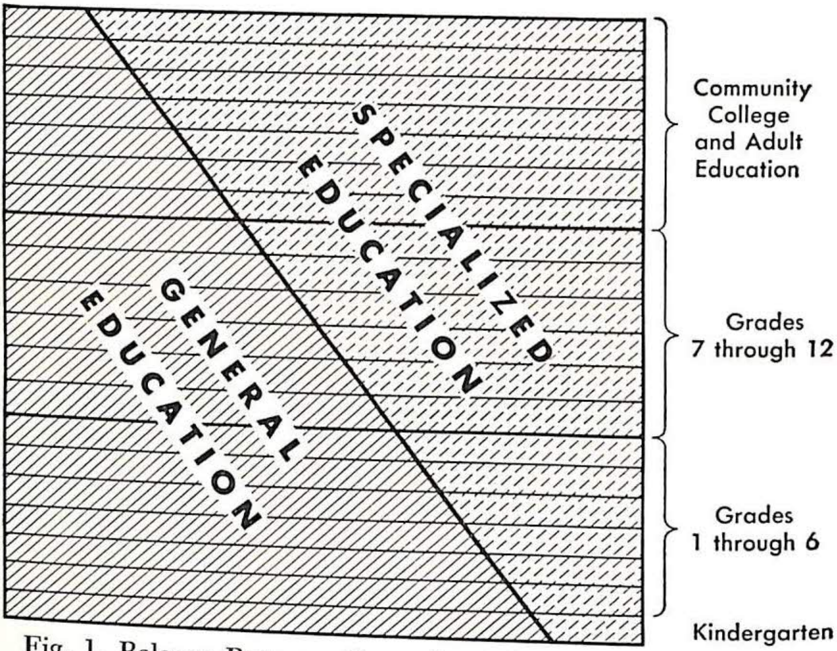

Fig. 1. Balance Between General and Specialized Education.

As adolescents grow and mature, more of them reach the stage in their development when they feel a need for specialized education for vocational purposes. Therefore, the community college program should be designed primarily to prepare youth and adults occupationally. This balance between general and specialized education, with the emphasis on general education in the elementary school and increasing emphasis on specialized education through high school and the community college, is illustrated by Figure 1.

General and Specialized Education Supplement and Enhance Each Other

These two aspects of education are parts of every individual's complete education, each supplementing the other. Obviously, it is impossible to separate these two aspects, even if we wanted to do so. Education involving skills, attitudes and technical knowledge of an occupation also has certain cultural values that might be thought of as general education. With preparation for a vocation as the focus of an education, the student is more likely to recognize the place of all subjects in the curriculum; mathematics, science, art, and government take on new meanings. They are now functioning and meaningful subjects related to the student's goals. Subjects, in the mind of a student, are no longer fragments of learning, each unrelated to the other or to life. They are now part of an integrated curriculum made significant by the fact that the student is engaged in a directed, purposeful activity leading to a life of productivity.

Both general and specialized education are needed by everyone. Every individual, regardless of ability level, economic status, race or creed, needs to be occupationally competent. But the competent worker must also be competent socially, emotionally, physically, and in a civic sense. These competencies cannot be separated sharply into educational compartments in a school, but experiences leading to each should be found, with varying emphasis, in all school activities.

There is a body of general education concerned with the non-specialized activities of living that must be provided for all—the amount and kind depending upon the individual and his needs. There is, however, a time in the education of everyone to begin specialized

PART IV

The Elementary School Program

Chapter 9

THE NATURE OF THE MODERN ELEMENTARY SCHOOL

The Elementary School Child

All schools exist for the benefit of the learner, and so the elementary school exists for the child. Since experiences are planned for him, it would seem appropriate to begin any consideration of this subject by taking a look at children in terms of their physical growth, personality development, purposes, needs, and interests. Not so long ago it was common practice to think of subject matter (the facts, skills, and understandings to be mastered) first and to consider children in relation to it. Modern education reverses this process by attempting to determine the nature and needs of the individual and then planning experiences (subject matter) which will serve these needs. While we are primarily concerned with the development of the child, we must also educate him to live with others in the home and the community, to function as an economic unit in our society, and to perform his civic responsibilities.

Each child is unique; each individual is different from others in his rate, pattern, and ultimate level of development in any characteristic such as intelligence, reading ability, artistic ability, or mechanical ability. Not only are there differences in the abilities, but the range of differences is greater than one might expect. Lindquist [1] found that in a first grade class made up of a random group of six-year-old children the range of mental ages as measured by intelligence and achievement test scores is spread over more than four years. Approximately two percent of the pupils have mental ages of less than four years, and two percent have mental ages of more than eight years. If the two percent at both ends of the distribution are disregarded, the remaining ninety-six percent of the class represent a four-year range in mental development. The range in intelligence and achievement of children at the end of the sixth grade is twice what it was at the first grade level—between seven and eight years. The same range exists in other ability and achievement areas such as reading comprehension, vocabulary, and knowledge of literature, science, geography, and history. Attending our elementary schools are boys and girls representing a wide range of abilities, interests, and personalities—boys and girls who will be the assembly-line workers, lawyers, carpenters, janitors, industrial executives, surgeons, farmers, merchants, and homemakers of the future. However, the range of abilities of people is probably no greater than that needed to produce the goods and perform the services which our civilization requires.

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[1] E. F. Lindquist, Editor, *Educational Measurement*, Washington, D.C., American Council on Education, 1951, pp. 9–14.

Physical, mental, emotional, and social development occur simultaneously and are interrelated. It is impossible to isolate the intellectual development of the child from his social, physical, and emotional growth. All phases of the child's development must be considered in planning educational experiences. It is a matter of teaching the whole child.

Each child in the elementary school has needs which when expressed take the form of interests. If experiences are planned to meet these needs and interests, the child is helped to achieve his goals satisfactorily, and some growth and development takes place. These needs are physiological, psychological, and cultural and form the basis for the motivation of learning. For example, one is the need for developmental activity—physical, mental, social, and emotional. This is basically a biological need, and the whole organism of the child is structured for it. The child's natural curiosity about what things are and how they operate provides a strong motivation for learning. Each child also has needs which might be classified as psychological and sociological. He needs to develop a wholesome attitude toward himself and a respect for others. This involves the development of a "social personality." He needs to feel that he is accepted by his peers and has status with them, if he is to feel secure in society. All children in the elementary school have a need for approval, acceptance, and status in the group or groups with which they are associated.

The Elementary School Curriculum

The experiences planned as a part of the elementary school program for any child or group of children—the curriculum—are based upon values which grow out of our democratic way of life. These values or ideals must be translated into goals for the elementary school which form the framework for the experiences children will have in the school. The report of the Educational Policies Commission of the National Education Association, *Education for All American Children*, lists three goals:

> A good elementary school . . . will help to develop those basic skills and that sturdy independence and initiative which will enable our citizens to attack the problems that face them and to press forward toward ever-improving solutions.
>
> A good elementary school . . . strives for the discovery and full development of all the humane and constructive talents of each individual.
>
> A good elementary school . . . emphasizes social responsibility and the cooperative skills necessary to the progressive improvement of social institutions.[2]

There are two divergent points of view about the organization of the elementary school curriculum. The more traditional approach is to plan experiences for children around organized subject matter, while the newer approach is to use the problems, needs, and interests in a first grade class made up of a random group of six-year-old children the range of mental ages as measured by intelligence and achievement test scores is spread over more than four years. Approximately two percent of the pupils have mental ages of less than four years, and two percent have mental ages of more than eight years. If the two percent at both ends of the distribution are disregarded, the remaining ninety-six percent of the class represent a four-year range in mental development. The range in intelligence and achievement of children at the end of the sixth grade is twice what it was at the first grade level—between seven and eight years. The same range exists in other ability and achievement areas such as reading comprehension, vocabulary, and knowledge of literature, science, geography, and history. Attending our elementary schools are boys and girls representing a wide range of abilities, interests, and personalities—boys and girls who will be the assembly-line workers, lawyers, carpenters, janitors, industrial executives, surgeons, farmers, merchants, and homemakers of the future. However, the range of abilities of people is probably no greater than that needed to produce the goods and perform the services which our civilization requires.

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[2] Educational Policies Commission, *Education for All American Children*, Washington, D.C., National Education Association, 1948, pp. 3–4.

Physical, mental, emotional, and social development occur simultaneously and are interrelated. It is impossible to isolate the intellectual development of the child from his social, physical, and emotional growth. All phases of the child's development must be considered in planning educational experiences. It is a matter of teaching the whole child.

Each child in the elementary school has needs which when expressed take the form of interests. If experiences are planned to meet these needs and interests, the child is helped to achieve his goals satisfactorily, and some growth and development takes place. These needs are physiological, psychological, and cultural and form the basis for the motivation of learning. For example, one is the need for developmental activity—physical, mental, social, and emotional. This is basically a biological need, and the whole organism of the child is structured for it. The child's natural curiosity about what things are and how they operate provides a strong motivation for learning. Each child also has needs which might be classified as psychological and sociological. He needs to develop a wholesome attitude toward himself and a respect for others. This involves the development of a "social personality." He needs to feel that he is accepted by his peers and has status with them, if he is to feel secure in society. All children in the elementary school have a need for approval, acceptance, and status in the group or groups with which they are associated.

The Elementary School Curriculum

The experiences planned as a part of the elementary school program for any child or group of children—the curriculum—are based upon values which grow out of our democratic way of life. These values or ideals must be translated into goals for the elementary school which form the framework for the experiences children will have in the school. The report of the Educational Policies Commission of the National Education Association, *Education for All American Children*, lists three goals:

> A good elementary school . . . will help to develop those basic skills and that sturdy independence and initiative which will enable our citizens to attack the problems that face them and to press forward toward ever-improving solutions.
>
> A good elementary school . . . strives for the discovery and full development of all the humane and constructive talents of each individual.
>
> A good elementary school . . . emphasizes social responsibility and the cooperative skills necessary to the progressive improvement of social institutions.[2]

There are two divergent points of view about the organization of the elementary school curriculum. The more traditional approach is to plan experiences for children around organized subject matter, while the newer approach is to use the problems, needs, and interests of the child as the basis for determining the curriculum; the former places the emphasis upon the content-to-be-mastered, while the latter emphasizes the child-to-be-taught. Much has been written on the relative merits of these two approaches to the curriculum. For our purposes it is sufficient to recognize the fact that there are differences of opinion as to the organization of the curriculum and that education for work and practical arts activities should be incorporated in every elementary school curriculum regardless of how it is organized.

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[2] Educational Policies Commission, *Education for All American Children*, Washington, D.C., National Education Association, 1948, pp. 3–4.

Because of differences in point of view on what is to be taught and how it is to be organized for teaching purposes, there are many different practices. There are still some teachers who use the more traditional approach because it is relatively easy and requires very little knowledge about the children being taught or of newer teaching methods; for them the textbook is the indispensable tool on which their teaching is based. There are more teachers, however, who use textbooks but in addition bring into play other teaching materials. Increasingly, teachers of elementary children are using the activity approach to provide for the varied interests of all members of the group and to allow each child the opportunity to exercise his special talents. The natural aptitudes of children are brought into play and utilized as a means of learning. Those who have aptitude for drawing can make their contribution and can express themselves through this medium; others find music and dramatics a more suitable means of expression; and still others are more skillful in construction work. Through this method of organizing instruction the teacher can give each child the opportunity to participate in a group learning situation by using his special talents. More recently a number of elementary teachers are using what is known as the "experience" approach in which each pupil makes his own choice of an activity or area of interest in which he desires to work. Instruction under this plan is highly individualized; therefore each child has, in effect, his own curriculum.

Whatever approach is used in developing the curriculum the elementary school should provide experiences which will help children to understand the world in which we live, including the workaday world. Each child needs both individual and group experiences designed to help him grow and develop into a worthy citizen and a productive member of society. An understanding of the world of work and the early development of appropriate habits and attitudes toward work are essential elements in the education of all children.

The Elementary School and the Community

Historically, the school and the community have operated apart from each other. In many schools even today the experiences children have in school and the lives they and their parents live in the community are relatively unrelated. McClusky claims that this separation has been caused by a combination of factors.

> . . . In the first place, the traditional subject matter of instruction abounds in abstractions requiring the manipulation of words. But skill in verbal manipulation may be attained mainly by growth in a cultural climate accessible to few persons. In the second place, prolonged and intensive training has been a prerequisite to the practice of such professions as teaching, medicine, dentistry, ministry, law, etc., whose processes are beyond the grasp of most people. And in the third place, the school has been regarded as a social economic ladder by which the individual climbs away from the common condition of mankind to the upper levels of advantage. Whatever the weight or intermingling of these and other factors may be, the leaders of education have in the past tried to maintain the school as a cultural isolate sealed off from the stream of the community. But the isolation of education is gradually yielding to superior insight into the relation of the school to society. We are finally catching up to the recognition of the unitary character of human experience and are beginning to discover the web of social relationships in which individuals and institutions are interlaced.[3]

The elementary school can be a dynamic force in improving the welfare of the people living in the service area of the school. If the instruction offered in elementary schools is to improve community living, the administration and faculty must be sensitive to the problems, needs, ambitions, and aspirations of the people living in the community, including the children. It is also essential that the resources of the community be used to supplement the resources of the school.

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[3] Howard Y. McClusky, "The School in the Community," *The North Central Association Quarterly*, April, 1941, Vol. XV, No. 4, p. 363.

It has long been recognized that the school and home must work together in the education of children. Conferences between parents and teachers are not uncommon. Parent-teacher association activities, visits by teachers to the homes of children, assignment of homework, and the joint responsibility of teacher and parent for the improvement of a deficiency in the development of the child are all evidences of school-home cooperation. In most communities this relationship between home and school could be improved considerably.

There are many community resources in addition to the home which should be used by the elementary school to improve community living. Children could be given a realistic interpretation of the work life of the community by the use of parents as resource persons; in most neighborhoods the parents are fairly representative of the occupational pattern of the community and would welcome the opportunity to interpret this phase of community living at least to the extent of arranging a visit to a farm, a business, or industrial establishment. This topic is treated more fully in Part I on the community school concept.

In speaking of changes which should be made in elementary education, John Dewey in his lecture in 1899 on "The School and Social Progress" stated,

> To do this means to make each one of our schools an embryonic community life, active with types of occupations that reflect the life of the larger society, and permeated throughout with the spirit of art, history, and science. When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self-direction, we shall have the deepest and best guarantee of a larger society which is worthy, lovely, and harmonious.[4]

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[4] John Dewey, *The School and Society*, Chicago, The University of Chicago Press, 1900, p. 44.

Elementary School Facilities

The type of program to be offered determines the facilities needed. In the more traditional schools where the emphasis is on subject matter to be acquired primarily through the use of textbooks, the room can be smaller, insulation to take care of noises is not so important, and the equipment can be limited to the conventional desks and chairs. If learning through the use of books is to be supplemented by a variety of activities, then the room should be larger, or perhaps there should be provided an activity room adjacent to the classroom. Also the equipment needed would be different. There is evidence to show that elementary teachers who have tables for constructional activities, benches equipped with a vise, tool and material storage cabinets, and activity space either within the classroom or readily available are doing considerably more to enrich the experiences of children through the use of handcraft activities.

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Chapter 10

THE PRACTICAL ARTS IN THE ELEMENTARY SCHOOL

The Practical Arts as Subject Matter

The practical arts were defined in Chapter 6 as those phases of general education dealing with the organization, materials, processes, and products of agriculture, business, industry and the home and with the contribution of those engaged in these fields. The pupil learns through his experiences with tools and materials and through his study of man's relationship to the world of work. The practical arts are concerned not only with skill in the use of tools and materials but also with the physical development of the child, his mental and emotional development, and the habits and attitudes he develops toward work and workers. As the child advances from the kindergarten through the elementary grades he should acquire an understanding of the changes made in materials to meet the needs of society, of tools and processes used to effect these changes, of the constant adaptation of materials, tools, and processes to meet changing conditions, and of workers and working conditions. As the child grows and develops he needs to acquire the ability to plan constructive projects, to select and use sources of information, to handle tools and materials, to express with material things his individual interests, to work and share as a member of the group, and to evaluate work and its products. He also needs to develop concern for safe practices, consideration for workers in all fields, regard for cooperation among the members of a group, and respect for property. While the practical arts are concerned primarily with the manipulation of tools and materials, they are recognized as including content of an informative, technical, and social nature which contributes to a better understanding of the world in which we live. The elementary school which makes full use of the practical arts combines reading, discussion, observation, and experimentation with participation in a variety of activities that make it possible for children to discover and develop their special interests and abilities.

The program of the elementary school should include experiences which will help boys and girls adjust to their environment. A part of this environment is made up of materials which are essential for the satisfaction of our basic needs for food, clothing, shelter, transportation, and recreation. How to deal effectively with the physical elements of one's environment is a problem that all children face even before they attend school and that persists throughout life. Years ago children were more likely to have the opportunity to learn about the materials of their environment by observing and assisting their parents with the work of the home and farm. In our age of specialization many of these experiences must be provided by the school.

Boys and girls should have the opportunity to work with a wide range of materials. In addition to paper, pencils, crayons, and paints, children are interested in and capable of working with such things as clay, textiles, plants, animals, wood, foods, leather, soap, plastics, and metals. Every child should have the opportunity for experiences with materials which will help him gain an appreciation for many of the more common materials; knowledge about materials, their sources, the labor involved in making them useful, and other appreciations and understandings can best be acquired by working with these materials at the same time the children study about them. It is not our purpose to give here a complete list of activities in which children might use these and other materials, but rather to suggest a few which are typical of practices in those elementary schools where the practical arts are taught. Growing plants; caring for animals; building bird houses; book and papermaking; clay modeling; baking cookies and pies; soap making and soap carving; leather tooling; gardening; block printing; sewing; weaving; model building; toy making; pottery making; constructing musical instruments; fertilizing soil; seeding a waterway; typewriting; wood carving; constructing projects related to scouting or 4H club work; reproducing school newspaper; caring for shrubbery on school grounds; and constructing marionettes are only a few of the many activities in which elementary school children can engage and through which they can learn about materials, processes, and products.

In order to shape, form, and assemble many of these materials simple tools are needed. Boys and girls should learn that tools can help man adapt materials to suit his needs. Children should learn to use some of the simple tools and to care for them. Most of the tools used in the elementary classroom will be the more common hand tools such as hammers, saws, garden tools, screw drivers, files, drills, needles, measuring instruments, planes, pliers, scissors, tin snips, try-squares, clamps, and punches. In addition to these and other hand tools, an elementary classroom might have one or more of the following pieces of equipment: potters' wheel, potters' kiln, sewing machine, duplicating equipment, jig saw.

Through practical arts activities in the elementary school boys and girls may be given the opportunity to work with tools and materials which are important parts of our culture and which will help them adjust to many persistent life situations in the home and in the community.

The Practical Arts in Relation to Other Subjects

Even though the kind of handcraft activities discussed here may be justified on the basis of whatever educational values are inherent in such learnings, the principal value will come from the use of these activities to make more real and vital all learning in the elementary school. Therefore, although we have been discussing the practical arts from the point of view of content, their primary function in the elementary school is not to develop skill in the use of tools and materials. The predominant reason for providing experiences in the practical arts as a part of the elementary school program is that these activities will facilitate the whole process of the growth and development of children. The practical arts might, therefore, be thought of as method as well as content.

As early as the seventeenth century Erhard Weigel in his School of Virtue used handwork "for the purpose of sweetening the process of learning." Comenius believed that instruction in words and things should go together; children should learn as much "as possible, not from books, but from the great book of nature, from heaven and earth, and from oaks and beeches." Pestalozzi, sometimes referred to as the father of manual training, conducted a number of experiments to "connect study with manual work, the school with the workshop, and make one of them." In his experimental schools Pestalozzi employed the method of teaching "from things to words." He believed that children in school should learn to work, not only because of the economic value of skill and the habits of work, but because this experience gave sense-impressions which, like the study of objects, became the basis of learning. He recognized the fact that "doing leads to knowing." In addition to form study and drawing, Pestalozzi's students engaged in a great variety of activities, including spinning, weaving, farming, gardening, bookbinding, needlework, and cooking.

The practical arts also have a function in relation to the development of moral and ethical values. A number of years ago Michael Sadler investigated moral training in the English schools. He sent questionnaires to many distinguished individuals, including several Americans. William James, then Professor of Philosophy at Harvard University, in response to the question "If you had a free hand, what reforms would you introduce in courses of study, or in educational organization or otherwise, in order to increase the ethical efficiency of school training?" replied as follows:

I should increase enormously the amount of manual or "motor" training relative to the book-work, and not let the latter predominate till the age of 15 or 16.[1]

Some children can learn some of the more abstract concepts by merely reading, writing, or talking about them. Most children, however, find it easier to understand these concepts when applied in practical and concrete situations. The idea of "learning by doing" is one which is quite generally accepted in theory and discussion but not so generally practiced. Dewey said, "The child's impulse to do finds expression first in play, in movement, gesture, and make-believe, becomes more definite, and seeks outlet in shaping materials into tangible forms and permanent embodiment. The child has not much instinct for abstract inquiry."[2]

In further discussing instincts and impulses of the child, Dewey listed four of them: (1) the social instinct as shown in conversation, personal intercourse, and communication; (2) the instinct of making—the constructive impulse; (3) the instinct of investigation—finding out things; and (4) the expressive impulse—the art instinct which he referred to as the "natural resources, the uninvested capital, upon the exercise of which depends the active growth of the child." On the question of motivation for the learning of reading, writing, and number work, Dewey wrote that ". . . the child shall be led by that which he is doing to feel the need for acquiring skill in the use of symbols and the immediate power they give. In any school, if the child realizes the motive for the use and application of number and language he has taken the longest step toward securing the power, and he can realize the motive only as he has some particular—not some general and remote—use for the symbols."[3]

More recently Alfred N. Whitehead wrote, "If you want to understand anything, make it yourself, is a sound rule. Your faculties will be alive, your thoughts gain vividness by an immediate translation into acts. Your ideas gain that reality which comes from seeing the limits of their application."[4]

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[1] Michael Sadler, Editor, *Moral Instruction and Training in Schools*, New York, Longmans, Green and Company, 1908, p. 94.

[2] John Dewey, *The School and Society*, Chicago, The University of Chicago Press, 1900, p. 59.

[3] John Dewey, *The School and Society*, Chicago, The University of Chicago Press, 1900, p. 119.

In those schools where the program is built around organized bodies of subject matter, the practical arts can be used as a vehicle to give meaning and purpose to instruction in any or all subjects in the curriculum. For example, if the children were to undertake the publication of a weekly or monthly newsletter, reading, writing, and spelling would become more purposeful; at the same time there would be many corollary learnings, such as the ability to cooperate in a group project, an understanding of the problems of reproducing and distributing materials, and experience with at least one of the more simple methods of reproduction. A project such as this can be an aid in the teaching of other subjects at the same time that it vitalizes the teaching of reading and writing; problems in arithmetic, science, and art are also involved.

To construct a window box or bird feeding station, to make grape jelly or prepare cocoa, to build a store or postoffice, to churn butter or plant and nurture seeds, is not merely to engage in some "busy-work" for the sake of physical activity. These and thousands of other activities can be used, if properly chosen and introduced, to give meaning to the subjects generally taught in our elementary schools. Most of the newer elementary school textbooks, especially in such subjects as science, arithmetic, and the social studies, give many suggestions of things children can *do* to facilitate the learning of the subject. In addition, there are available many resource materials for teachers interested in helping children to learn through doing. Some of these are included in the list of references at the end of this chapter.

In those schools where the curriculum is planned in relation to the problems, needs, and interests of the children, the use of the practical the manual worker is gradually disappearing. William S. Knudsen, when president of General Motors Corporation, said,

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[4] Alfred N. Whitehead, *The Aims of Education and Other Essays*, New York, The Macmillan Co., 1929, p. 83.

> If I were twenty-one I would be a mechanic. I would try to get work in a machine shop. If that failed I would try for a job in a filling station, or as an apprentice to an electrician or a plumber, or as a clerk behind a counter, or as an errand boy. I would try to get some work to do with my hands. . . .
>
> George Washington was for years a hard-working surveyor; Thomas Jefferson was a gifted designer of useful appliances; Benjamin Franklin was a journeyman printer, an inventor, and the best electrician of his age; Abraham Lincoln split rails, kept a store, built and worked on flatboats. The fact that these men knew how to work with their hands undoubtedly contributed to their hard practical sense. . . .
>
> What I am hitting at is the false tradition of gentility which prevents many a gifted youngster from following his natural bent. I want to tear down the idea that one honest job is more honorable than another. Honorable work is any work that you do well.[6]

Experiences in the elementary school should be planned so that children can frequently feel the joy and satisfaction of a job well done. Call it what you will—pride in one's work, application to the task at hand, devotion to duty, or ability to carry the job through to completion—it is a quality based upon an attitude which needs to be fostered. These are just a few illustrations of attitudes which can be developed in the elementary school, attitudes which will help the individual to deal more effectively with life situations both as a social being and as a producer of the goods and services needed by society.

The Development of Habits of Work

A habit is a characteristic or tendency developed through repeated action. Many habits which the child develops while engaged in the activities of the elementary school will become either an asset or a liability when he takes his place in the community as a producer. An extended list of desirable habits could be prepared; the following are some habits of particular significance to the individual as a worker.

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[6] William S. Knudsen, "If I Were 21," *The American Magazine*, June, 1939.

It is recognized that some of these characteristics are more than habits. Many of them are affected by attitudes, ideals, and values held by the individual.

Regularity of attendance
Promptness
Economical use of time
Orderliness
Accuracy
Neatness
Cleanliness
Perseverance
Enthusiasm
Self-control
Honesty
Dependability
Reliability
Responsibility
Courtesy
Sociability
Initiative
Adaptability
Resourcefulness

Every teacher is interested in developing these characteristics to the point where they become habitual. But the teacher who sees these qualities as the foundation of the future worker will also see increased possibilities for the development of these characteristics. The traditional elementary school did not provide as many opportunities for the development of some of these habits as does the school in which learning experiences are provided through a variety of activities. The subject-matter-centered school emphasized discipline, but it was an external discipline imposed by the teacher rather than self-discipline for which the child takes the responsibility.

An Understanding of the World of Work

There are in the United States over twenty thousand different occupations which have been defined by the United States Department of Labor. A systematic study of all of these occupations would obviously be impossible and ridiculous. But children are interested in the work men do. They are interested in the work their fathers and many of their mothers do and would welcome the opportunity to tell their classmates about it, to have Dad come to school to explain his work, or to arrange for a visit by the class to the store, office, farm, shop, or other establishment where he works. Children observe adults arts activities cannot be avoided. If, in planning educational experiences for boys and girls, we start with their impulses, instincts, and interests and attempt to utilize them as "natural resources" which the child brings to any learning situation, the place and importance of practical arts activities become obvious. We know that children are curious about many *things*. This curiosity is expressed by a constant stream of questions, which is the child's way of disclosing his wants, needs, and interests. Questions asked by pupils have always been recognized as the setting for effective teaching. In addition, a number of studies have been made to determine the nature of questions asked and their implications for curriculm making. Emily V. Baker made such a study in which she provided an opportunity for children in grades three to six in schools widely distributed geographically, to ask any questions or types of questions and the children were given no opportunity to discuss their questions with others. The questions were then grouped in categories and listed in rank order according to the percentage of children who asked one or more questions in each group. (See the following table.) The second column shows the percentage of the total number of questions in each category in relation to the total number of questions asked. There were thirteen additional categories of questions asked by less than ten percent of the children and these categories each constituted less than three percent of the total number of questions.

Questions classified under a number of these categories have particular significance for those phases of the curriculum concerned with the manipulation of tools and the use of materials. Animal and plant life, which ranked first and tenth, may be thought of primarily from the point of view of the biological sciences but there is also implied in these questions the need for experiences which involve doing—doing the kinds of things a farmer, for example, does in relation to animals and plants. Inventions, travel and transportation, communication, and industries and commercial products all have direct implications for the "doing" elements of the curriculum, even though it is pointed out by Baker that nearly fifty percent of the questions fall within the areas commonly considered the social studies and

The Main Categories and the Percentage of Children Who Asked Questions in Each and the Percentage of Questions in Each Category in Relation to the Total Number.[5]

CATEGORY	PERCENTAGE OF TOTAL NUMBER OF CHILDREN	PERCENTAGE OF TOTAL NUMBER OF QUESTIONS
Animal life	33.31	12.20
Man as a social being	24.23	6.69
Industries and commercial products	23.97	9.03
School	22.66	7.80
Communication	22.4	6.26
War	21.82	6.02
Travel and transportation	20.84	5.33
The earth	20.18	5.08
American history and government	18.68	4.89
Plant life	17.11	4.20
Weather and climate	14.50	3.84
Energy	13.91	3.22
The human body	13.19	3.46
Astronomy	11.10	3.63
Inventions	10.78	4.13

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[5] Emily V. Baker, *Children's Questions and Their Implications for Planning the Curriculum*, New York, Bureau of Publications, Teachers College, Columbia University, 1945, pp. 16 and 17.

nearly thirty-eight percent call for scientific information. Included among the questions which "draw heavily upon the areas which are commonly dealt with as social studies" is the category of "Industries and Commercial Products."

The following is a partial list of questions included in the category on industries and commercial products which suggest the interests of children in the processes of production and preparation of material things. Careful study of these questions should leave no doubt that many of the problems, needs, and interests of children while they may be classified as social studies or science can be served most effectively through the practical arts.

I wonder where all things from the grocery store come from?

What is *milk* made of? bread? oats? roast beaf? butter? sugar? meat?

How do we get pasteurized milk?

How do they dry prunes?

How do you make ice cream? donnuts? butter? cake? candy? pies? bread? sugar?

How do you take wool off a sheep?

How is cloth made?

How do they make silk?

How are belts made and what materials are used to make them?

How are furs cured?

How do we get leather?

How are shoes made?

How are bricks made?

How is glass made? brick glass? frosted glass? paint? varnish? lumber? slate? houses? artificble brick siding? plaster? windows? wallpaper?

What makes glass transparent?

How do they cut glass?

How is paper made? cardboard? oiled paper?

How is ink made? Paper? chalk?

How do they make crayons? caryonex? paints color. . . ? pencils? cascade pencils? blackboards?

How do they put lead in a wooden pencil?

How is iron made? steel? steel wool? wire? Needles? gold? silver? lead? tin?

What is the broses in making copper, asbestos and alominon aloy?

How is the lead that we use in our pencils made?

How are clocks made? Wrist watch?

What is rubber made of?

How is rubber made?

How does a oilwell work?

How do we get coal?

How do they put the little wire in a light bulb?

How are compasses made? Lumber? Cans? A match? Light bulbs? Straws?

How are wooden chairs carved out?

How do they make *balls* tops? Dolls? Whistles? Paper Dolls?

How do they make T.N.T.?

Why don't the farmers paint their buildings?

Is there any use of diamonds besides rings, bracelets, etc?

What is the most important work in the U.S.A.?

Why are there so many stores?
Why isn't the cat fur as valuable as the mink or some other animal?
What kind of cloth do we use the most? [6]

It will be noted that the desires, needs, and interests reflected in this list of questions are immediate (rather than delayed) and, for the most part, specific. The most successful modern elementary teacher will utilize these immediate needs and interests in the achievement of long-range goals of the individual and of the society of which he is a part.

Success and Recognition through the Practical Arts

Thus far in this chapter we have been concerned with the teaching of the practical arts for two purposes: (1) to give children a knowledge of some of the materials of our culture, and (2) to facilitate the teaching and learning of other subjects in the elementary school. But the acquiring of skill and knowledge in the various subject-matter areas is not the sole purpose of the school. The modern elementary school is also concerned with the problem of helping children make good personal-social adjustments. A person who fails to make adequate adjustments over an extended period of time is said to be in poor mental health or emotionally maladjusted. Although there may not be many children in the average elementary classroom who might be considered "maladjusted," actually all children find it necessary constantly to make adjustments between those forces which emerge from the child himself—his wants, needs, goals, and purposes—and those forces which stem from the social world in which he lives. The elementary teacher can help children make these adjustments as the needs arise and thereby prevent many of the more complex cases of maladjustment from developing. The elementary teacher who uses practical arts activities to the best advantage will find them to be an effective device to help the child fulfill his needs and achieve his goals. Through the use of the practical arts the teacher can also help the child meet the expectancies of the social groups in which he interacts. Such experiences contribute to the development of a "well-adjusted" child.

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[6] *Ibid.*, pp. 49–53.

A child in order to be well-adjusted needs to experience success. The traditional school deals largely in the use of words with some number and art work added to round out the program. Many children experience only a limited degree of success in working with these media. The resourceful teacher uses these and many other media through which boys and girls can investigate, experiment, and construct. Books then become a resource used to furnish the answers to many of their questions. In a school where wood, clay, leather, and a hundred other materials are used every child can find something which he can do successfully and on a level which will challenge his abilities. Most teachers use chores in the classroom as a means of giving certain children the kind of experiences which will assist them in making adjustments. This idea can be multiplied many times by the use of the practical arts.

A child in order to be well-adjusted needs to have a sense of worth. The elementary school by providing opportunities for children to make realistic comparisons of abilities, talents, and accomplishments can develop in each child a degree of self-confidence and self-respect. It is not possible to accomplish this in an environment which is predominantly verbal in character because not all children are equally gifted in the use of words. To place all children in a situation where music is the principal activity would hardly be considered ideal for the purpose of helping children develop a sense of worth. The need for a diversified program involving the use of a variety of materials and activities seems obvious if we want to give each child the opportunity to develop maximally.

A child in order to be well-adjusted must be helped to feel that he is growing. Increasingly he needs to become independent of his parents and identified with the larger world. This makes it necessary that he gain familiarity with the activities of the world outside his home, including the work men and women do and the products of their labors.

A child in order to be well-adjusted must feel that he is accepted by his peer groups. As the child grows away from the family circle, he must acquire status with his peers. The child who has less ability in academic matters finds this a more difficult task. Those who have a high degree of athletic or musical ability can win recognition and approval of their peers through activities involving these special skills. The liberal use of practical arts activities in the elementary school program will greatly increase the number of situations in which children will have the opportunity to meet with success, to achieve a sense of worth, to increase in independence and to acquire status with their peers.

Discovery of Special Talents through the Practical Arts

In the preceding chapter attention was drawn to the fact that each child is unique. While it is recognized that children have much in common, they are different more ways than they are alike. The traditional elementary school has either not recognized this fact, or else because of large classes and inadequate preparation teachers are not capable of dealing with it effectively.

Of course, all children should be encouraged to attain a certain level of proficiency in communications skills; in number concepts, and in facts about themselves and the world in which they live. But it is the differences in individuals which make them capable of great achievements and which enable them to make their greatest contributions to society. The ways in which Thomas Edison and John Audubon were different from each other as children were probably more significant than the fact that they had the ability to read at about the same level. Not all children are gifted in the same way or even to the extent of these two individuals, but all children do have special aptitudes and abilities with which they can excel in something. It is the responsibility of the elementary teacher to recognize these capacities and provide an atmosphere in which they can grow and develop. Special talents are not to be thought of only in relation to one's vocation. The recognition and development of special abilities are also important in the personal-social development of the child.

The second of three goals of a good elementary school (see Chapter 9) is that it "strives for the discovery and full development of all the humane and constructive talents of each individual." Since not all children are talented in the use of words, the curriculum which includes little more than this might be considered inadequate. The curriculum enriched with activities of all kinds including those that challenge children with musical, artistic, physical, scientific, and mechanical abilities is far more likely to reveal the array of special talents to be found in every elementary classroom.

Integration of the Practical Arts

The practical arts in the elementary school should be thought of as a study of man's work activities in relation to the physical, social, and cultural environment he has created through inventions, tools, materials, and processes. It is a study of the processes by which man changes raw materials to suit his needs. But these changes are more meaningful to children when the practical arts are integrated with the social sciences, the physical and natural sciences, and the arts. The practical arts cannot be taught most effectively as an isolated separate subject in the elementary school because the materials and processes with which they are concerned are a part of man's life and way of living. Dewey, in speaking of the subject matter of education said,

> The primary basis of education is in the child's powers at work along the same general constructive lines as those which have brought civilization into being. In the so-called expressive or constructive activities is the center of correlation. This gives the standard for the place of cooking, sewing, manual training, etc., in the school. They are not special studies which are to be introduced over and above a lot of others in the way of relaxation or relief, or as additional accomplishments. I believe rather that they represent, as types, fundamental forms of social activity; and that it is possible and desirable that the child's introduction into the more formal subjects of the curriculum be through the medium of these constructive activities.[7]

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[7] John Dewey, "My Pedagogic Creed," Personal Growth Leaflet Number Nineteen, Washington, D.C., The National Education Association.

Although every elementary school should provide experiences which will enable children to become familiar with the more common tools and materials of industry, business, agriculture, and the home for whatever educational values are inherent in such learnings, it is not presumed that the practical arts must or should be set apart as a separate body of subject matter in the elemenary school program. Instead, the materials, processes, and products of agriculture, industry, business, and the home become appropriate subject matter for the elementary classroom whenever they enhance learning or satisfy a curious mind. The classroom should have in it a variety of "things" which are a part of the out-of-school life of the child, things which would stimulate questions, provide the opportunity to investigate, to explore, to manipulate, to construct and through such an enriched learning environment prepare children to deal more effectively with their environment in the home and in the community.

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Chapter 11

EDUCATION FOR WORK BEGINS IN THE ELEMENTARY SCHOOL

The Place of Education for Work in the Elementary School

Ideally, all able-bodied adults are expected to make a contribution to society through the production of goods or services. The work men do in satisfying the needs of society varies greatly from that of the laborer whose work is largely manual to that of the professional whose contribution is made largely through intellectual efforts. Education for work (in a larger sense than the customary meaning of the term vocational education) includes all those experiences planned as a part of the school program for the purpose of promoting the vocational potential of the individual. When considered in this way it is readily seen that vocational education is more than specialized training which may be provided in the high school, trade school, business college, or professional school for a specific vocation. It is our purpose here to consider some of the phases of education for work which are appropriate on the elementary school level.

It is not implied that the elementary school should provide specialized education for particular occupations or even that education for work should be a primary purpose of all elementary schools. However, in one of our large cities there has been established a group of elementary schools which carry the designation "vocational" and which do have as their function, "to provide the means whereby children in the upper grades who have experienced difficulty in adjusting themselves to the regular elementary school program may have a fresh opportunity, under highly favorable circumstances, to attain success." The program of these Vocational Elementary Schools includes all the basic subjects usually taught in the upper grades of the elementary school and, in addition, woodworking, printing, and drafting for boys and cooking and sewing for girls are provided. The curriculum emphasizes learning by doing, and each subject is taught by a specialist. Graduates receive regular elementary school diplomas and may enter any public general high school, technical high school, or vocational high school in that city. The emphasis in these Vocational Elementary schools is undoubtedly not to prepare children for a particular vocation but rather to help them realize their vocational potential at the same time that personal, social, and civic competencies are being developed. While the emphasis in elementary schools generally may not be as strong in the direction of meeting the vocational needs of children as it is in the schools just described, it would seem appropriate that all elementary schools give this phase of education for effective living considerably more attention than it has had in the past.

Over forty years ago, in a report on "Education in Vermont," the disassociation of the common schools from the work life of the community was pointed out quite sharply.

> Inaugurating a school system as an agency of civilization, the modern democratic state has in view two distinct objects: first, to develop the mind and the spirit of youth, to teach him self-control, and thus to fit him for citizenship. This is what is generally understood as education. Secondly, it is the purpose of such a state to fit each child to become an effective economic unit in the state's life. This is vocational education. The state must have both ends in view and must aim to serve them both, but it must also be careful not to confuse them. It is not possible to turn the elementary and secondary school into mere training-places for the vocations. To do this is to abandon the chief purpose for which these schools exist. On the other hand, it is hopeless to expect that a boy or girl will look toward the vocational school so long as it is wholly unrelated to and separated from the common school system. In other words, the vocational school must have its roots and growth in a common school system which, while its main purpose is to educate, still educates its

> pupils into an appreciation of the economic conditions and problems of their own countryside. The elementary school must develop the sympathy of the child for the community in which he lives, if it hopes to guide him successfully to a vocational school which shall prepare him for a useful life in that community. Today the elementary school guides him away from any such vocational ideal. It does not interest its pupils in the trades that they see about them, and a school intended to train for such trades has no connection with the common school system. There is no door by which the boy passes easily from the one to the other. It is a part of the difficult problem of every modern state both to educate for life and to train for economic productiveness, to develop both the general system of schools for citizenship and a series of special schools or courses for vocations; to have each system of schools sympathetic and helpful to one another and yet not to confuse the two purposes.[1]

While this report refers to different "systems" in order to accomplish the two principal purposes of education, the trend seems to be toward a unified system in which both purposes are recognized and one or the other is emphasized in each school unit according to the goals of the learners. Many educators believe that both of these purposes can be accomplished in the same school and at the same time. This topic is discussed in greater detail in Chapter 8.

The modern elementary school is the counterpart of the earlier common school. The experiences provided for children in the modern elementary school should bear a direct relationship to life in the community, including the work men and women do. Furthermore, it should make a significant contribution to preparation for work-life in the home and community by promoting the vocational potential of each child.

The Development of Attitudes toward Work

An attitude is a point of view, an idea, or a belief which has an emotional content often expressed as a prejudice or bias. Research clearly indicates that attitudes can be changed through instruction in the schools and that many attitudes are more easily changed in the elementary years than later. Helping boys and girls develop wholesome attitudes toward work is one way in which the elementary school can be of real service to the individual and society. The following is a list of some favorable attitudes which teachers might help to develop and which would serve the individual in immediate situations as well as in the future:

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[1] "Education in Vermont," New York, Carnegie Foundation for the Advancement of Teaching, Bulletin No. 7, Section IV, 1914, pp. 125–126.

1. It is desirable to work.
2. All useful work is respectable.
3. All types of work are important.
4. Any task undertaken is worth doing well.

Work is physical or mental effort directed to some end or purpose. Somehow it has come to be thought of by many as something undesirable of which one does as little as possible; others think of it as a necessary evil which must be endured in order to provide the material necessities of life. Alfred N. Whitehead has made an interesting observation on this point:

> The curse that has been laid on humanity, in fable and in fact, is, that by the sweat of its brow shall it live. But reason and moral intuition have seen in this curse the foundation for advance. The early Benedictine monks *rejoiced* in their *labors* because they conceived themselves as thereby made fellow-workers with Christ.
>
> Stripped of its theological trappings, the essential idea remains, that work should be transfused with intellectual and moral vision and thereby turned into joy, triumphing over its weariness and its pain. Each of us will restate this abstract formulation in a more concrete shape in accordance with his private outlook. State it how you like as long as you do not lose the main point in your details. However you phrase it, it remains the sole real hope of toiling humanity. . . .[2]

People's attitudes toward work range from disgust to elation. It should not be expected that all people can be completely happy in their work, but the elementary teacher can do much to improve the attitudes of children toward work and about work.

Children can be helped to understand that it is desirable for one to work, that even though one must work in order to provide the necessities of life for himself and family, most people work even after these needs have been satisfied because work brings satisfactions which cannot be had in any other way. Also, many people (teachers, for example) work in occupations which provide less of the material advantages but rank high in other compensations. One's work can be the means of serving one's fellow men. Happiness, to a great extent, lies in being useful to others. The work one does is, therefore, important as a potential source of happiness. One's job is a part of life and not merely the means of earning enough money so that "life" can be enjoyed after working hours. George E. Myers has said,

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[2] Alfred N. Whitehead, *The Aims of Education and Other Essays*, New York, The Macmillan Co., 1929, pp. 67–68.

> An individual does not make life in a vacuum. A great part of his waking hours is spent in his vocation. Usually his major contribution to society is made through his vocation, and many of his greatest personal satisfactions should come to him, and do if his vocation is suitable, from the same source. His ability to make valuable contributions to society outside of so-called "working" hours, and also to find personal satisfaction, is conditioned by his vocational success and his vocational environment. His thinking, behavior, and associations are similarly conditioned. In a very real sense he chooses a way of life when he chooses a vocation.[3]

certainly the farmer, the doctor, the seaman, the minister, and men in hundreds of other occupations find in their work a way of life and through service in their daily work derive many, if not most, of the personal satisfactions and pleasures which life affords. Richard C. Cabot has expressed the idea of service in this way:

> When we try to serve the world (or understand it), we touch what is divine. We get our dignity, our courage, our joy in work because of the greatness of the far-off end always in sight, always attainable; never at any moment attained. Service is one of the ways by which a tiny insect like one of us can get a purchase on the whole universe. If we can find the job where we can be of use, we are hitched to the star of the world, and move with it.[4]

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[3] By permission from *Principles and Techniques of Vocational Guidance*, by George E. Myers. Copyright, 1941, The McGraw-Hill Book Company, p. 3.

[4] Richard C. Cabot, *What Men Live By: Work, Play, Love, Worship*, Boston, Houghton-Mifflin Company, 1914, p. 85.

If viewed in this light, the work one does might more appropriately be thought of as a calling; teachers can help children think of one's life work in this way.

Work is also desirable from the point of view of personal health, especially mental health. William H. Burnham writes,

> In all conditions of life and society, work is the condition of health and happiness. Stanley, in the heart of Africa, rousing his discouraged men every morning to face the apparently interminable forest, says that the remedy for all misery, discouragement, and despair, is work. This, which is so excellent a remedy, is still better as a preventive.[5]

It is not the purpose of this book to prescribe those attitudes toward work and about work that should be developed in every child in the elementary school; it is our purpose to point out how the elementary teacher can make a significant contribution in the education of children for living, including work-life, by helping them develop appropriate attitudes toward and about work.

All types of work are important in our society because we are so interdependent. The good garbage collector makes as a great a contribution to the health and welfare of the community as a good doctor. The factory worker makes it possible for us to have modern conveniences in our homes and to enjoy the benefits of modern transportation and communications. The truck driver brings to our community daily a supply of food and other materials to meet our needs. How then can we say that any one occupation is not important? In earlier societies where there were two distinct classes of people, the rulers and their subjects or the landowners and their serfs. There was a wide separation between those who worked with their hands and those who used their mental capacities. Since we have no leisure class, as such, in a democracy, and since all citizens are expected to participate in our form of government, we cannot think in terms of preparing some children for manual tasks and others for mental work. The sharp distinction between the mental worker and at work in the community, and they read about some of the more glamorous occupations in story books, but unless teachers plan specifically to help children understand the world of work as it exists in their community, it is quite likely that they will form unrealistic concepts of the world of work and their relationship to it.

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[5] William H. Burnham, *The Normal Mind,* New York, Appleton-Century-Crofts, Inc. Copyright, 1927, p. 207.

Skills Taught in Elementary School Are Essential to Living and Working

While most of the skills taught in the modern elementary school are considered essential in order to live in our society, they are the same skills which will be useful to many in their vocations.

The ability to communicate effectively is necessary if one hopes to succeed in most occupations. Most people work in groups and therefore it is necessary to communicate with each other. Skills in reading, writing, listening, and speaking are a part of the equipment required of workers in all but a few categories. The same can be said of skill in the use of numbers, although this need may not be as universal as the need for communication skills.

The ability to get along with others is important in both living and working. The social skills acquired in the elementary school will serve to improve human relations in business, in industry, on the farm, and in the home. Teachers can make a significant contribution to the education of children for work by providing experiences which will enable them to develop maximally their social competencies.

This chapter has dealt primarily with the development of attitudes, habits, skills, and understandings which are particularly pertinent to the individual as a worker. There are other outcomes of a good elementary school program of benefit to the worker, such as the building of ideals which affect work, the development of ethical values, and the emotional and aesthetic development. The fact that these aims of elementary education were not discussed in relation to education for work does not mean that they are considered less important. An analysis should be made of these less tangible outcomes of education with a view of determining how they are related to education for work.

Every elementary school has an obligation to children to give them those skills, understandings, habits, and attitudes which will enable them to make a better adjustment to that phase of their environment dealing with the workaday world.

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PART V

Vocational Education and Practical Arts in the Secondary School Program

Chapter 12

CHARACTERISTICS OF THE SECONDARY SCHOOL POPULATION

Change in the Character of the Secondary School Population

The increase in the number of boys and girls attending secondary schools is almost phenomenal even though the public high school as an American institution is only in its infancy. The first one was established in Boston in 1821, but nearly 200 years before that the Boston Latin Grammar School was founded (1635). Very few youth attended the Latin grammar schools which had as their purpose the preparation of boys for college so that they might later serve the church as ministers. About the middle of the eighteenth century the first academies came into being. They were essentially private schools but under semi-public control, operated on a tuition basis, often church-sponsored, frequently dominated by a strong religious purpose, and attended by no more than five percent of any age group. The academies did offer a broader curriculum but they were still principally classical schools. Most of them had dormitories and boarding halls and unlike the grammar schools, most of them admitted girls. In a sense, the establishment of the academies was a significant phase of the transition from the period when a single curriculum was available to a limited few in the partially tax-supported grammar schools to the present time when all youth, including girls, are provided the opportunity (at least in theory) to get an education consistent with their needs and interests in a tuition-free public high school.

Although the first public high school in the United States was established in 1821, it was not until near the end of the 19th century that the movement toward universal education on the secondary level became generally accepted. A comparison of enrollments in secondary schools just before the movement toward universal high school education got into full swing and the middle of the present century shows the tremendous growth which has occurred. In 1870 some 80,000 students were enrolled in secondary schools and by 1950 this number had increased to nearly 6,500,000. While the general population of the United States had increased about four times, the population of our secondary schools had multiplied about eighty times. Conservative estimates point to the further increase in attendance in our high schools until we reach an enrollment of over 10,000,000 by 1965.

While the increase in the number of youth enrolled in our secondary schools is important, the most significant feature about this development is the change in the characteristics of this enlarged school population. The aims and purposes, social and economic backgrounds, and the problems and needs of boys and girls in our high schools today are quite different from those of youth enrolled before the turn of the century. Boys and girls attending high school then were homogeneous in academic ability and occupational outlook, but youth in the modern high school are a cross section of society in academic ability, as well as in all other kinds of abilities, aptitudes, interests, backgrounds, and occupational goals. The Report of the Harvard Committee on *General Education in a Free Society* describes the earlier situation this way:

> . . . in 1870 three fourths of those who attended high school went on to college. The high school's function was therefore clear; it was quite simply to prepare for college. Its curriculum, membership, and general atmosphere were all dominated by that purpose. Those who went to high school were therefore a fairly homogeneous group, on the whole children of well-to-do families looking forward to the learned professions or to leadership in politics or trade.[1]

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[1] *General Education in a Free Society*, Report of the Harvard Committee, Cambridge, Massachusetts, Harvard University Press, 1945, p. 7.

Curriculum Adjustments Have Not Kept Pace

The earliest antecedent of the modern high school, the Latin grammar school, was in reality a vocational school designed to prepare young men for the ministry. The subjects taught were Latin and Greek grammar, Caesar, Tully, Ovid, Virgil, Homer, and the Greek testament. The early American high school program included a few years of English, some science, mathematics, history, Latin, and foreign languages. The predominating purpose was, like that of the Latin grammar school, to prepare young men and women for the professions—that is, to prepare them for admission to colleges and universities where they received further preparation for the professions of their choice. These traditional high school subjects have therefore gained respectability; they were accepted by colleges and universities for entrance and were the mark of an educated man when only a very small percentage of our population was educated.

Since the founding of the American high school, many changes have come about in our society, not the least of which is the generally accepted idea that a secondary education is needed by everyone, not just the few who will enter the professions or fill government positions. The average high school of today has enrolled boys and girls who are preparing for college, but it also has about three times as many who will enter a vocation immediately upon leaving high school. Has the curriculum been adjusted to meet the needs of this expanding and heterogeneous population in our high schools? Most schools have supplemented the traditional subjects by the addition of some physical education, art, and music activities. Fewer schools have provided facilities and personnel for the teaching of agricultural, business, industrial, and homemaking education. In general, high school faculties and administrators are more concerned about the education of the smaller percentage who will go to college than they are about the mass of youth most of whom will take their places as producers in the community as soon as they leave school, and consequently a disproportionate emphasis is still being given to the traditional academic subjects. A critical look at the experiences provided for youth in most of our high schools would suggest that the curriculum is obsolete because it meets the needs of only a small proportion of the boys and girls now enrolled in these schools. The result is that many of those whose needs are not being served leave our schools prematurely. The drop-out rate is cause for alarm and will be discussed in Chapter 14.

The Nature of Youth in Our Schools Today

This army of boys and girls passing through our high schools should be studied by everyone having something to do with the planning of educational experiences for them. They represent a wide range of interests, purposes, social and economic backgrounds, aptitudes, hopes, and aspirations. But on the other hand they have many common qualities. Let us consider some of the ways in which they are similar.

All boys and girls in our high schools are citizens in a democracy, and most of them are members of several groups of people, including the family, scout troop, church group, club, or athletic team. All youth live in our American culture and have a desire to understand it. They also want to develop and maintain strong and healthy bodies which will enable them to lead active lives of work and play. Most boys and girls are looking forward to the time when they will achieve social and economic independence. These common characteristics of youth in our high schools should form the basis for much of the activity in the secondary school program.

But the differences among children are more important to the educator than are the similarities. Also the differences among children of high school age are greater than they are among elementary school children. Let us consider the fact that boys and girls in high school, 12 to 18 year of age, are different in:

General intelligence
Special abilities
Aims and purposes
Social backgrounds
Cultural backgrounds
Economic backgrounds
Problems
Needs

Interests
Occupational outlook
Physical and mental health
Emotional stability
Ethical values
Energy output
Body structure
Sex
Race

This is only a partial list, but it illustrates the point that youth are different in many ways. Let us consider in greater detail several of these differences.

The range of differences among boys and girls of high school age in general intelligence and special aptitudes is perhaps most striking because we have some concrete evidence to point up these differences. In an earlier chapter dealing with the elementary school child the point was made that children in a typical sixth grade classroom represent a range of from 7–8 years in intelligence, reading ability, artistic ability, mechanical ability, and the like. That is, while the chronological age of most children in a typical class of sixth graders is 11 years, the range of general intelligence or achievement in any special competence such as reading, spelling, music ability, mechanical ability, etc., is from 7 years (second grade) to 15 years (tenth grade). This is the range of distribution even after the geniuses and morons are eliminated. As boys and girls are exposed to more educational experiences, this range becomes even greater so that in the senior high school we will find some who have no more than a fifth grade level of ability in a particular competence while in the same class there are others whose ability in that same area is of advanced college caliber. Youth attending the secondary schools of the 19th century did not represent this range in abilities and aptitudes.

The fact that boys and girls in high school today come with different cultural, social, and economic backgrounds is quite obvious. It is equally obvious that we frequently fail to take into account these differences when planning educational experiences for high school youth.

The occupational goals of youth comprise the whole gamut of occupations in which men are engaged in our workaday world. A disproportionate number aspire to preparation for the professions, but the number interested in preparing for occupations in business, industry, and agriculture is increasing as the financial rewards and the accompanying social status associated with these occupations approaches that of the professions and as the secondary school population expands to include all youth of high school age.

There is a wide range of problems, interests, and basic needs of boys and girls in our secondary schools because of the many differences in backgrounds, abilities, aspirations, and values. Whether the curriculum is to be based upon organized bodies of knowledge or the actual experience of youth, or both, educators must be aware of the nature of the individuals to be served including the common needs and interests which can be met through education. But even more important they must identify the significant differences among high school boys and girls and then make provision for experiences which will make it possible for each individual to develop his interests and capacities maximally.

The population of our secondary schools, grades seven to twelve, includes boys and girls roughly ranging in age from 12 years to 19 or 20 years. This is approximately the period of adolescence which has been defined as "a developmental period which extends from the end of childhood to the beginning of adulthood." [2] While the end of childhood and the beginning of adulthood are not clearly defined points in the life of anyone and do not occur at the same ages in all individuals, it can be stated that childhood is a period of nearly complete dependence and adulthood a period characterized by a large measure of social and economic independence. To this extent, then, adolescence is a period of growth and development from dependence upon parents or others to a life of relative independence. In many other cultures the individual is inducted into adulthood as soon as he matures physiologically, but in democratic industrial societies youth's entrance into adult life is retarded. For example, it is not uncommon in some cultures for ten-year-old boys to do the work of adults. In our democratic industrial society it is difficult for a 14-year-old boy to find the opportunity to work and in many states the child-labor laws and other social legislation, as well as custom, make it virtually impossible for youth under 16 years to find employment. The secondary schools have youth during this period when society tends to treat them socially as children while physiologically they are adults. Kallen considers this social prolongation of infancy a serious matter when he says,

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[2] V. T. Thayer, Chairman, *The Social Studies in General Education*. Copyright 1938, Appleton-Century-Crofts, Inc., p. 71.

> The attendance at high school and college must and will increase. Unless the management and curricula of these establishments are so altered as to put an end to the class war between teacher and pupil, between classroom and campus and gown and town, the effect of the socially desirable postponement of gainful occupation by these millions of young Americans cannot fail to be as socially undesirable as it became in the totalitarian countries of Europe. As presently conducted, most high schools and colleges direct the vital powers of their charges toward the futilities of an artificially prolonged infancy. The reform of secondary and higher education must look to such a change of their government and program as will no longer separate learning from living; as will provide full play for the energies and passions of the nation's youth and enable them all at least to live and to act as responsibly and purposefully as the members of a football squad.[3]

Youth and Life Adjustment

The needs of youth planning to attend college are being met quite satisfactorily by most secondary schools. Some schools are doing a fairly adequate job of preparing boys and girls for entrance into the skilled occupations. The Prosser Resolution, which was the basis for the national program which has become known as Life Adjustment Education, urged that special attention be given to those youth in our secondary schools whose needs are not now being met by college preparatory training or vocational education. The youth with whom this resolution was concerned cannot be identified with any degree of accuracy by any one characteristic. Every single characteristic associated with the youth referred to in the Resolution is also associated with certain of those who are in the college preparatory or vocational programs. However, when a great many of these characteristics are associated with one individual, the chance of that individual's being one who will be inadequately served in our schools, as presently constituted, is high. Youth in this group often, if not usually,

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[3] Horace M. Kallen, *The Education of Free Men*, New York, Farrar, Straus and Young, Inc., 1949, p. 85.

1. Come from families the members of which are engaged in unskilled and semiskilled occupations.
2. Come from families with low income.
3. Come from families with low cultural environments.
4. Are retarded in school.
5. Begin school later than other children.
6. Make considerably poorer scores on intelligence tests (not only verbal traits but all mental traits).
7. Make considerably lower achievement test scores for age than the average.
8. Make somewhat lower achievement test scores for grade than the average. (Since they are usually retarded their achievement is nearer their grade group than their age group.)
9. Make lower marks than other students.
10. Are less emotionally mature—nervous, feel less secure.
11. Lack interest in school work.[4]

This list of characteristics of a particular group of high school age is given not to imply that boys and girls in this group are inferior, but to point out the need for a different type of educational services. The number of youth possessing these characteristics has increased proportionately much faster than the total population in our secondary schools.

All youth of high school age are attempting to make whatever adjustments are necessary in order to live more satisfying lives in their homes and communities. Those possessing the characteristics listed in the foregoing paragraphs have more difficulty in making appropriate adjustments, and the experiences most boys and girls have had in secondary schools have aided them but little in making the adjustment. Many of these youth cannot find meaning in traditional school activities, but they have talents and abilities not recognized by the traditional school which could be developed and directed into worthwhile goals. Many of them can learn only from real life experiences and find it impossible to learn anything from the artificial situations which exist in the traditional school.

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[4] *Life Adjustment Education for Every Youth*, Bulletin 1951, No. 22, Federal Security Agency, Office of Education, Washington, D.C., 1951, p. 45–46.

Youth and the Future

The future belongs to youth. Youth are living and preparing for the future. They are concerned about what lies ahead, in relation to themselves, their families, their communities, the state, the nation, the world, and the universe. Speculation about the future constitutes a powerful source of motivation for learning. It needs only to be recognized and then utilized in the planning of educational experiences which will help youth achieve their goals and ambitions for the future.

Youth of high school age are looking to the time when they can attain economic independence, perform the work of an adult, and through their efforts provide for themselves and families the material things of life which they believe will result in a happy life. McClusky reports on a survey in which 1475 junior and senior high school boys were asked how often they thought about the future:

> . . . none of them said they *never* thought of the future, only 61 said they *almost never* thought of the future (of these 61 forty-eight were in the junior high school), 380 said they thought about the future *once in a while* (again 255 of these were in the junior high school), 670 said they thought about the future *quite often,* while 247 said they thought about the future *almost all the time.* With some exceptions most of their thoughts about the future dealt, first, with the kind of occupation they would take up; second, with the future of their educational training; third, with the amount of money they would earn and things they would own; and fourth, with getting married and the establishment of their own home.[5]

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[5] Howard Y. McClusky and others, *Should Youth Challenge the Secondary School?* Bulletin No. 318, Michigan Department of Public Instruction, Lansing, Michigan, 1941, p. 35.

In a survey of high school students' problems in Asheville, North Carolina, in which the Mooney Problem Check List was used, the number of cases showing marked concern in each of the areas was as follows:[6]

AREAS	NO. OF CASES
The Future: Vocational and Educational	90
Finances, Living Conditions, and Employment	87
Adjustment to School Work	87
Personal-Psychological Relations	63
Health and Physical Development	55
Social and Recreational Activities	36
Curriculum and Teaching Procedures	32
Social-Psychological Relations	20
Home and family	18
Courtship, Sex, and Marriage	17
Morals and Religion	14
Two or more areas tied	84

Of the 603 students in this school the two items (of a total of 330 items) marked by the greatest number were in the area of "The Future: Vocational and Educational." Over half of the students (312) marked the item, "Wondering what I'll be like years from now" and 192 checked the item, "Wondering if I'll be a success in life."

Youth are thinking about their futures and are more likely to be interested in an educational program which seems to bear a direct relationship to living in it. They are especially interested in those aspects of life having to do with the selection of and preparation for a vocation.

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Chapter 13

SOME BASIC NEEDS OF YOUTH

On the Subject of Needs

This chapter deals with youth, boys and girls between the ages of approximately 12 and 20, the age generally referred to as the period of adolescence. These youth are in our secondary schools, grades 7 through 12, and a small percentage in our junior or community colleges. Most of them are employed before they reach the end of the period of adolescence.

The needs of youth should be the focal point of concern as we plan and direct educational experiences. Teachers and administrators have always organized educational programs with some ideas about the needs of the individuals to be served; usually these ideas were preconceived however, and frequently based upon adult values and the personal prejudices of educators. It is our purpose here to take an objective look at the question of educational needs from the point of view of the individual.

In a chapter on "Determining the Nature of the Needs of Youth" in the Fifty-Second Yearbook of the National Society for the Study of Education, Low lists three assumptions which, if accepted, will make the study of the nature of needs as they apply to curriculum building appear valid.

1. The purpose of public education in this country is to induct the young into the American democratic culture within the ideological framework of that culture.

2. Any problem the individual must solve in order to become more

effective in furthering democratic ends constitutes a need for him regardless of whether he is now aware of this need or must be helped progressively to become aware of it.

3. Since American democratic ideology embraces the belief that the individual is of supreme worth and the further belief that the preservation and improvement of society depend upon the full utilization of his potentialities, the methods employed for inducting him into the culture must neither deny his basic feelings of need nor be limited by his present feelings of need.[1]

In the preceding chapter it was pointed out that the early secondary schools, like the Latin grammar schools and academies, were devoted to meeting the needs of youth preparing for college and the ministry. In these schools the emphasis was on intellectual achievements, the acquisition of facts, knowledge, understanding, and insight. Many schools still operate on the basis of this limited concept of the purpose of education. Fortunately, however, most schools have a broader understanding of the needs of youth.

Some educators view needs primarily from the standpoint of the demands which will be made of the individual in adult life; for those who look at it this way, education becomes a matter of "preparation *for* life." With this point of view the immediate needs of youth are less important than the probable future needs. Other educators take the position that programs of instruction on the secondary level should be based primarily on the present life needs of youth and that to recognize and provide for them is the best guarantee of satisfactory adjustment in adulthood. Very few people would claim that education should have its orientation exclusively in the present or in the future. The conflict arises principally on the question of emphasis. The authors of this book take the position expressed in the Fifty-Second Yearbook of the National Society for the Study of Education which was,

> That this yearbook rejects the assumption of an antithesis between present and future needs. Rather, the position is held that many, if not all,

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[1] *Adapting the Secondary-School Program to the Needs of Youth*, Fifty-Second Yearbook, Part I, National Society for the Study of Education, Chicago, The University of Chicago Press, 1953, pp. 23 and 24. Used by permission of the Society.

of the basic needs of the individual persists in some form throughout his entire life, and that his future needs have their roots in the present.[2]

Another point of disagreement is to be found in the question of the extent to which programs for secondary school youth should be based upon personal or societal needs. Since few people would claim it should be exclusively one or the other, this again is a matter of emphasis. A defensible program for youth should recognize the needs that arise within the individual as he grows and develops, but at the same time it should serve the needs of society of which the individual is a member. These needs are not in conflict, especially in a democracy. They are reciprocal in nature and therefore inseparable. Personal needs are to a large extent the result of social demands, and social demands are the outgrowth of an accumulation of personal needs.

One of the principal difficulties teachers and administrators have had in attempting to implement an educational program based on problems and needs common to most adolescents has been that these needs have not always been defined specifically enough to suggest activities to be included in the program. It is possible to be quite specific about the needs of a particular individual, but when we attempt to describe the common needs of a group of adolescents our statements of need must be more general. This is so because of the wide range of individual differences found among any group of adolescent youth. These differences were discussed in Chapter 12.

Needs can be classified according to their degree of universality. There are some needs which adolescents have in common with all other adolescents. Regardless of race, sex, nationality, social position, economic background, or any other characteristic, these needs exist and should be satisfied. Some of these are physiological, as the need for food, others are psychological, as the need for security, and still others are sociological, as the need for the gradual attainment of independent status as an adult. These and other needs become more specific as they are applied to a particular group of adolescent boys

[2] *Ibid.*, p. 3.

or girls in a given community who represent some degree of homogeneity. But finally, there are needs which can be defined only in terms of the unique nature of the individual. Furthermore, all needs, those common to all adolescent youth as well as those common to a particular group of youth, can be dealt with most effectively only if we recognize the unique nature of the individual.

There are, then, three categories of needs: (1) those common to all youth, (2) those common to a particular group of youth, and (3) those unique to the individual. This hierarchy is not as arbitrary as the three classifications might suggest. In fact, general needs frequently demand the satisfaction of many subsidiary needs each of which in turn requires the satisfaction of needs still more specific, until eventually they become unique to the individual. Take, for example, the need for the attainment of independent status. This calls for a source of income other than that provided by parents, which may suggest one or more of several more specific needs, such as the need for a part-time job, or the need for education which is intended to prepare one for employment. If the youth decides to seek part-time employment, he probably should develop immediate salable skills, a more pleasing and attractive personality, improved grooming, and a knowledge of employment practices in his community. As a general need is broken down into the more definite ones, we eventually come to needs which are so specific for the individual in a particular situation, that the learning experiences in which he should engage become obvious.

This chain of needs which was developed from the general need for the attainment of independent status would seldom, if ever, occur as a discrete series of needs. There is an inter-relationship of needs to such an extent that they cannot be singled out and met separately. In the previous example, the desire for a more pleasing and attractive personality may also be motivated by the need for approval of the peer group, a need which may be related to the necessity for independence from parental control.

Needs of youth have their origin in (1) the expectations and requirements which society places upon its members, and (2) those inner drives and tensions which motivate the individual to make a change within himself or his environment in order to bring the two into harmony. As was pointed out earlier, these origins do not suggest separate kinds of needs. Rather, they constitute two distinct sources or sets of conditions from which we can determine the needs of youth. The classroom teacher should recognize the differences between needs derived from these two sources because those which stem from the inner drives of the learner can be met by experiences which are in harmony with the concerns of the student, while experiences based upon needs which have their origin in the demands of society should be more carefully planned in order to motivate the student and give meaning and purpose to the instruction.

Needs Common to All Youth in a Democratic Society

Some of youths' needs are universal; the boy in Timbuctoo has the need for food just as does the girl in Colorado Springs. But since many of the needs of youth stem from the culture in which they live as well as from their personal drives and urges, this discussion will be limited to boys and girls living in our democratic society. Most of this discussion would also apply to youth living in any other nation which has adopted our way of life.

The purpose of education is to induct the young into our democratic way of life and, as stated in the assumptions at the beginning of this chapter, at the same time help them "to become more effective in furthering democratic ends." In this way society places upon the individual certain expectations and requirements which, when translated into the education of the individual, can be expressed as needs. The individual needs to acquire skills, knowledge, attitudes, and habits which will perpetuate our society and at the same time improve community living. People in general, but educators in particular, frequently analyze the situation in our country in order to determine the degree to which our society is functioning in harmony with its democratic values and ideals which are sometimes expressed in terms of social objectives. Hand lists nine major functions of a democratic society which may be used as a frame of reference for determining the needs of youth. They are as follows:

> To keep the population healthy
> To provide physical protection and guarantees against war
> To conserve and wisely utilize natural resources
> To provide opportunity for young people to make a living
> To rear and educate the young
> To provide wholesome and adequate recreation
> To enable the population to realize aesthetic and spiritual values
> To provide a sufficient body of commonly held beliefs and aspirations to guarantee social integration
> To organize and govern in harmony with beliefs and aspirations.[3]

The extent to which any group of people—a community, state, or nation—achieves these or other social objectives depends in a large measure upon its desire to accomplish them. It is unlikely that any group of people is completely satisfied with the social situation suggested by any one of these objectives. They look to the schools to help them more adequately achieve them. In a very real sense, then, the purpose of education is to bridge the gap between the social situation as it now exists and the improved society which adults hope to achieve through the education of children and youth, and at the same time maintain our present culture. These goals are expressed in many different ways. The Educational Policies Commission of the National Education Association in its report, *Education for All American Youth—A Further Look,* stated these goals as follows:

> Schools should be dedicated to the proposition that every youth in these United States—regardless of sex, economic status, geographic location, or race—should experience a broad and balanced education which will
>
> (1) equip him to enter an occupation suited to his abilities and offering reasonable opportunity for personal growth and social usefulness;
>
> (2) prepare him to assume full responsibilities of American citizenship;
>
> (3) give him a fair chance to exercise his right to the pursuit of happiness;

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[3] Harold C. Hand, "The Case for the Common Learnings Course," *Science Education*, XXXII, February, 1948, pp. 5–11.

(4) stimulate intellectual curiosity, engender satisfaction in intellectual achievement, and cultivate the ability to think rationally; and

(5) help him to develop an appreciation of the ethical values which should undergird all life in a democratic society.[4]

The National Association of Secondary-School Principals has stated these goals in terms of "The Ten Imperative Needs of Youth" listed in the following order:

1. All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. To this end, most youth need supervised work experience as well as education in the skills and knowledge of their occupations.
2. All youth need to develop and maintain good health and physical fitness and mental health.
3. All youth need to understand the rights and duties of the citizen of a democratic society, and to be diligent and competent in the performance of their obligations as members of the community and citizens of the state and nation, and to have an understanding of the nations and peoples of the world.
4. All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life.
5. All youth need to know how to purchase and use goods and services intelligently, understanding both the value received by the consumer and the economic consequences of their acts.
6. All youth need to understand the methods of science, the influence of science on human life, and the main scientific facts concerning the nature of the world and of man.
7. All youth need opportunities to develop their capacities to appreciate beauty, in literature, art, music, and nature.
8. All youth need to be able to use their leisure time well and to budget it wisely, balancing activities that yield satisfactions to the individual with those that are socially useful.
9. All youth need to develop respect for other persons, to grow in their insight into ethical values and principles, to be able to live and work cooperatively with others, and to grow in the moral and spiritual values of life.

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[4] Educational Policies Commission, *Education for All American Youth—A Further Look*, Washington, D.C., National Education Association, 1952, p. 32.

10. All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding.[5]

Buell C. Gallagher in a speech given at a work conference on Life Adjustment Education in Washington, D.C., in October, 1951, gave seven needs which are common to all. They are listed below.

> Every child needs to know himself as a growing individual. Along with self-discovery and self-development, he also needs a sense of belonging, of being wanted and appreciated.
>
> Every child needs to know how to face difficulties without frustration. Along with self-reliance, he also needs perspective and increasing maturity.
>
> Every child needs opportunity to develop his own latent talent, interests, abilities. Along with self-development, he also needs to grow in empathy.
>
> Every child needs to know how to be a home member; most need to know how to be breadwinners or homemakers—sometimes both; all need to know the basic values and skills of good citizenship in a democracy.
>
> Every child needs the skills and tools of literacy and communication. Along with the three Rs, he needs full control of his faculties of imagination and creativity.
>
> Every child has a right to access to his cultural heritage, together with the cultivation of his own ability to add to and enrich that heritage as he passes it along.
>
> Every child has the right to grow up, assuming an increasing proportion of adult responsibilities as he does so.[6]

In each of these lists of objectives will be found one or more items which have particular significance for anyone interested in the development of programs of vocational education and practical arts. Although there may have been no significance intended, the goal of occupational competence is listed first by both the Educational Policies Commission and the National Association of Secondary-School Principals.

It should be recognized that these lists of educational objectives are not limited to common needs which stem from cultural factors. Some of the needs listed have their origin in the growth characteristics of the typical adolescent. As the child grows and develops he has drives and desires which must be satisfied if he is to make a satisfactory adjustment. These result in problems and needs which the individual faces. These drives which youth have in varying degrees at different times may take the form of whims, wishes, desires, hopes, interests, inclinations; or they may be a stronger force expressed in the form of problems or concerns. A number of studies have been made to determine the problems of youth. Such a study was made before World War II by Bell.[7] Psychologists, psychiatrists, and sociologists have during the past two decades been engaged in the study of the basic needs of children. Perhaps the most significant work in this area has been done by Prescott, who studied the basic personality needs and conditions which frustrate them, by observing the behavior of children. He reported three categories of needs as follows:

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[5] National Association of Secondary-School Principals, *Planning for American Youth*, Washington, D.C., National Education Association, 1951, p. 9.

[6] *Life Adjustment Education in the American Culture*, Circular No. 335, Federal Security Agency, Office of Education, Washington, D.C., 1951, p. 14.

1. Physiological Needs:
    a. Essential materials and conditions
    b. Rhythm of activity and rest
    c. Sexual activity
2. Social Needs:
    a. Affection
    b. Belonging
    c. Likeness to others
3. Ego and Integrative Needs:
    a. Contact with reality
    b. Harmony with reality
    c. Progressive symbolization
    d. Increasing self-direction
    e. A fair balance between success and failure
    f. Attaining selfhood and individuality[8]

Numerous other studies intended to discover the problems and concerns common to youth have been made, but only one other study will be reported here, that done by Doane.[9] After a survey of the literature on needs he decided that they fell into the following fifteen major areas: (1) Vocational Choice and Placement, (2) Philosophy of Life; Mental Hygiene, (3) Getting Along with People, (4) Morals, (5) Plans for Marriage and Family, (6) Leisure Time and Recreation, (7) Finances, (8) Relationships with the Opposite Sex, (9) Health, (10) Sex and Reproduction, (11) Religion, (12) Relationships with Family, (13) Social Competence, (14) Conventional Subject-Matter Areas, and (15) Other Areas of Interest. Instead of asking the high school students directly what their needs were, Doane described twenty "courses" by giving a number of suggestive topics for each. Each of the courses of action presented to the youth was designed to offer aid in meeting a presumed need of adolescents. The purpose was to measure the relative degree of concern regarding the needs which these "courses" might suggest. Over two thousand high school youth in widely separated communities representing a wide range of social and economic backgrounds responded to the inventory. The youth were asked which five of the "courses" they would most want to take if they were in a high school where only the twenty described "courses" were offered and where it was required that five be taken. Also, under the same circumstances, which five would they least like to take. In the second part of the study the separate topics which made up the descriptions of the "courses" were again presented but this time individually and in mixed order; youth were asked to check all topics they would like to study. It is interesting to note that of the twenty choices, the "course" which dealt with "Vocational choice and placement" was checked most frequently as one of the five *most* desired (over 60 percent) and the same "course" was selected least often as one of the five *least* desired "courses." The topics under this "course," "Vocational choice and placement," in which boys and girls expressed the greatest concern, ranked as follows:

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[7] See Howard M. Bell, *Youth Tell Their Story*, Washington, D.C., American Council on Education, 1938.

[8] Daniel A. Prescott, *Emotion and the Educative Process*, Washington, D.C., American Council on Education, 1938, pp. 110–25.

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[9] Donald C. Doane, *The Needs of Youth*, Teachers College, Columbia University, Contributions to Education, No. 848, New York, Bureau of Publications, Teachers College, Columbia University, 1942.

> How to find a job
> Deciding what kind of work you want to do when you finish school
> How to apply for a job
> Keeping a job
> Finding out what kind of work you are best suited for
> Learning how to prepare yourself for the kind of work you intend to do
> Training for a job that you are interested in which will fit you for immediate employment upon finishing school. . . .[10]

Doane found little difference between the concerns of boys and girls about vocational matters. He noted a significant tendency for boys, as their age increased, to choose more frequently the items under the heading "Vocational choice and placement." For example, the item which dealt with "Training for a job that you are interested in which will fit you for immediate employment upon finishing school . . ." was checked by 29.6 percent of the 13-year-old boys, 41 percent of the 14-year-old boys, 44.1, 44.2, 54.2 and 65.4 percent respectively for the 15- through 18-year-old boys.

Havighurst has brought together the needs of the individual and the demands of society to form a concept which he calls "developmental tasks" which arise at or about a certain time in the life of the individual and which he must achieve in order to be happy and well-adjusted. The accomplishment of these tasks is necessary if the individual is to succeed with later tasks. Failure to achieve these tasks leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks. According to Havighurst developmental tasks, ". . . may arise from physical maturation, from the pressures of cultural processes upon the individual, from the desires, aspirations, and values of the emerging personality, and they arise in most cases from combinations of these factors acting together." [11] Havighurst has identified ten developmental tasks with which boys and girls are confronted generally during the period of adolescence. These are:

> Achieving new and more mature relations with age-mates of both sexes
> Achieving a masculine or feminine social role

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[10] *Ibid.*, p. 72.

[11] Robert J. Havighurst, *Human Development and Education*, New York, Longmans, Green and Company, Inc., 1953, pp. 4 and 5.

Accepting one's physique and using the body effectively
Achieving emotional independence of parents and other adults
Achieving assurance of economic independence
Selecting and preparing for an occupation
Preparing for marriage and family life
Developing intellectual skills and concepts necessary for civic competence
Desiring and achieving socially responsible behavior
Acquiring a set of values and an ethical system as a guide to behavior[12]

We have considered from a number of different points of view the needs of youth in a democratic society. A study of common needs makes clear the fact that youth want and should have help from the secondary schools which will enable them to choose a vocation wisely, prepare for work in their chosen occupation, find employment in the vocation for which they are prepared, and make satisfactory adjustment to their life work.

Needs Common to a Particular Group of Youth

While the establishment of needs common to all youth living in a democratic society is helpful, it is hardly an adequate basis for the development of a community program of vocational education and practical arts. The needs common to all youth are defined in terms of the normal range of individual differences as well as the range of differing local environmental conditions. A community school should have much specific information about the needs of boys and girls for whom educational experiences are being planned and about the nature of the community in which they live. Chapter 25 describes some techniques which should be helpful in determining community needs having implications for the vocational program on the high school level. There are some techniques that can be used to identify, within narrower limits, the needs of boys and girls attending a given school or enrolled in a given class.

Various methods and devices used in order to determine the needs common to all youth can also be used to determine more specifically

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[12] *Ibid.*, pp. 111 to 158.

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the problems, needs, and interests of a particular group of youth. Questionnaires, interest inventories, problem check lists, surveys of hobbies, part-time employment surveys, follow-up studies of graduates and school leavers are some of the many methods used to determine the problems, needs, and interests of youth. But the most effective method of obtaining clues as to the needs is through personal interviews and informal working relationships with youth.

Needs Which Are Unique to the Individual

As was pointed out in the previous chapter, youth have many characteristics in common, but they are different in more ways than they are alike. The fact that each boy and girl in our secondary school is a unique personality makes it necessary that someone in the school know each student as an individual. A good share of the responsibility for knowing and understanding each boy and girl must rest with the teacher who works with him or her daily. Tests, interest inventories, problem check lists, and other devices can be useful in learning about the individual as well as in learning about a group of people, but there is no substitute for intelligent observation of the individual as he associates with others in the work and play of the school. The observing teacher has the opportunity to study the behavior of each pupil in many situations and under varying conditions. Often the more informal settings, such as are frequently found in shops and laboratories, are more conducive to uninhibited behavior in which the individual reveals his problems, needs, and concerns.

As the teacher studies the individual to learn of his shortcomings in terms of growth and behavior, he must know the student as an individual in the home and in the community as well as in the school. His recreational activities, hours involved in and nature of part-time employment, family relationships, family's economic condition, hours of sleep, fathers' and mothers' occupations, and a host of other out-of-school conditions should be understood by the teacher who hopes to be of maximum help in serving the needs of youth.

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Chapter 14

THE NEEDS OF YOUTH FOR VOCATIONAL DEVELOPMENT

In all important respects, the man who has nothing but his physical power to sell has nothing to sell which it is worth anyone's money to buy.[1]

Vocational Development as a Need of Youth

As was indicated in the preceding chapter, the needs of individuals in the field of vocational preparation cannot be considered entirely apart from those of society or from the total educational needs of the individual. It is significant that in every list of needs which was presented, vocational development is included in one form or another. In order to set the stage for discussion of school programs aimed primarily at such vocational development it is our purpose here to examine more in detail the nature of the individual's need for vocational education.

Vocational development extends over a long span of years of youth. During this time the nature of the need varies. In early years the boy or girl is concerned more with exploration—with finding out what different workers do and what their work is like. The boy may mentally project himself into the role of the aviator, the engineer, the politician, or the baseball player. The girl may envision herself as an actress, a nurse, a secretary, or an airline hostess. As the youth gets older his interests change less frequently and become more stable.

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[1] Norbert Wiener, *The Human Use of Human Beings*, Boston, Houghton-Mifflin Co., 1950, p. 180.

These interests often begin to center on an occupational field, rather than a specific occupation. At the same time, youth are interested in acquiring knowledge and ability in relation to some definite, prospective job. In addition to the youth who are certain of going to college and who are willing to postpone specific training until later, a great many hope to be prepared for a job by the time they graduate from high school or at least after attending a community college or enrolling in vocational courses following graduation.

A comparison of the status and intermediate vocational goals of high school students in each of the four major fields of vocational education reveals some differences but also some striking similarities. The farm boy interested in agriculture is usually living at home and working part time on the farm. His immediate vocational goal is to make a beginning in farming by acquiring some equity in a farming business through ownership of livestock and/or equipment. He is interested in acquiring abilities necessary to carry on the operations of a beginning farmer. He may be interested in entering an occupation related to farming, in which case he desires more farm experience and a background of fundamental education in agriculture. The girl in high school is living at home and taking on increasing responsibilities as a member of the family. She is looking forward to a home of her own or to part-time homemaking while employed. She is, therefore, interested in acquiring abilities needed for marriage and the establishment of a home, as well as abilities that will help her to be a better homemaker in her parental home. The boy or girl interested in a business career, either in an office or in retail selling, wants first of all to get some experience. Unlike the farm boy or girl in the home, he typically has had no experience in the occupation of his choice, and he knows that his prospective employer places a high value on experience for initial employment. The youth in school may get part-time employment and thus acquire experience. If he does, he soon will feel the need for training in skills required by his employer. His immediate vocational objective is preparation for full-time employment upon graduation or leaving school. The boy or girl interested in industrial employment, if it is to be in a repetitive-type of job, may not feel the need for specific training at this level. However, if he is interested in an occupation in which some skill is required for initial employment as, for example in automechanics, he will seek that kind of training. His objective, too, is initial employment after leaving high school. If he is interested in entering a trade which is apprenticeable he will seek to prepare for such an apprenticeship or to shorten the period of apprenticeship by acquiring basic and specific skills while in high school.

One factor that is common to all these fields is youth's desire to get a start, to get his first job, or somehow to make a beginning in his life work. Regardless of the field selected there is the potential desire, if the individual has been given adequate guidance, to be well prepared for that first job or for becoming established on a self-employed basis should the opportunity arise.[2]

After making a start in an occupation, the young worker continues to develop vocationally if he is given the opportunity. He soon finds the need for developing new abilities if he is to qualify for a better position, improve his earning power, or become fully established in business, in farming, or in homemaking. This desire to improve continues through adulthood. In some individuals who become self-satisfied, it may recede, but in others it may be such a strong motivating force that they never stop seeking to improve their vocational skill. The needs of adults for both vocational education and practical arts are treated at greater length in Chapter 19.

Returning to high school youth for a moment, a word must be said about some popular misconceptions concerning the advisability of offering vocational education to young people in the secondary school. It is held by some people that these youth are too young and immature, and that their vocational interests are too unstable to justify provision of specific occupational training at this level. It is true that some youth of secondary school age are less mature and settled in their interests than we might hope for. It is also recognized at this point and stressed in a later chapter that much training should be given at the adult level. The denial of specific education for occupational life at the secondary level, however, represents either a defeatist attitude, a reflection of the experience of present school people during their youth, or a result of failure to make a correct interpretation of the facts.

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[2] For an extensive list of the needs of youth in vocational development see: Cooperative Study of Secondary School Standards, *Evaluative Criteria*, 1950 Edition, Washington, D.C., 1950, p. 42.

Youth of high school age can and do make wise choices regarding their vocational future. Naturally, almost all choices at this age are tentative, with many other alternatives clamoring for priority in the mind of youth. But to deny the existence of these tentative choices would be to turn one's back upon reality.

It also must be recognized that some teachers and administrators have never themselves been enrolled in vocational courses at the level of the secondary school. Thus it may be difficult for such persons to project pupils into a role which they have not themselves experienced. They may make the grave error of assuming that all youth should "do as they did."

School people and other citizens should realize that to deny vocational education to youth of secondary age who want it and are ready for it would also deprive them of the additional contributions which such specific education could make to their general development. These contributions include the boy's or girl's development as a citizen, as a well adjusted person, and as a successful student, as well as his attainment of a satisfactory standard of living. Other courses in the curriculum of the secondary school might make a greater contribution to this development. A curriculum limited to subjects of general education, however, would not adequately provide for those youth who need salable skills when they leave the secondary school to go to work.

Vocational Competence and Citizenship

A good citizen is one who, among other things, serves society well with his talents. Society realizes this in a general way. The individual should also recognize it and should have an opportunity to develop himself so that he can measure up to what society expects of him.

Vocational education of the right kind builds character. Idleness is one of the forerunners of delinquency and anti-social behavior. The fact that the U.S. Children's Bureau estimated in 1951 that about a million youth came to the attention of the police for misbehavior should stimulate us to search for the causes.[3] Boredom, which may come from doing work which is not interesting or challenging to a person who has undeveloped potentialities is not conducive to good citizenship. Bertrand Russell once said, "Give a man the right kind of a skill and he will be virtuous. Give him the wrong kinds, or none at all and he will be wicked." We can assume that he was thinking of job skills along with others. It is pertinent in this connection to note that most correctional institutions provide specific training for employment. It is considered to be one of the essential elements of a program designed to restore persons to compatibility and constructive usefulness so that they can live in peace and harmony with their fellow men.

One teacher has reported this experience which illustrates the desire of youth for occupational skills. He was on a three-day camping trip with a group of high-school youth from a school which had a limited curriculum. The group was taken on a half-day trip through a nearby state correctional institution for boys. The group observed these boys in classes learning farming skills on the institutional farm, and learning tailoring, baking, carpentry, printing, and other trades in the institution's shops and laboratories. Following the trip, an evaluation was made by the group. Among conclusions on which they were unanimous, was this: that they wished their school had the vocational training offerings afforded by this correctional institution. The instructor reflected on the implications of the meager curricular provisions in some secondary schools. Why should a youth have to become a misfit socially in his community and be committed to a correctional institution in order to be entitled to adequate preparation for the vocation of his choice?

[3] Victor O. Hornbostel, "Facts and Figures on Juvenile Delinquency," *National Education Association Journal*, 42: 505–6, Nov., 1953.

Returning to the original point of this discussion, it can be truthfully said that learning experiences involving occupational skills are just as truly training for character and good citizenship as any other learning experiences. As Kilpatrick has said:

> Vocational education, whether it wishes to be so or not, is just as truly a character-building process as any other kind of education. When you are teaching a boy a job, you just cannot help training his character. If you let him think about his vocation narrowly, the result is poor character training; if you lead him to think and act well about his vocation, it is good character training, but for better, for worse, you have trained his character.[4]

Vocational Competence and Job Satisfaction

In the last analysis, most people like to be well thought of by their associates, their neighbors, and by other citizens of the community. Love of approbation is one of the "natural impulses" of normal individuals. But most persons also want to be satisfied in their own minds that what they are doing is being done well. Pride in accomplishment is one of their life goals. Shoddy work, clumsy use of tools, sub-standard accomplishment, and uncompleted tasks by individuals are things of which they are not proud and which tend to lessen confidence in themselves and to lower their morale. Workers like to do tasks of which they can be proud and which will lead to commendation. Lack of essential occupational skills will not lead to this kind of satisfaction and recognition by others.

Studies of people's reasons for choosing the occupation in which they are engaged reveal that an outstanding reason given has been enjoyment of the work. This enjoyment of the work is an indication of proficiency in it. It probably also indicates that the occupation is one for which the individual has aptitude and which is a challenge to him. The person who is unhappy in his work, however, is not always necessarily the person who lacks skill in the job in which he is employed. The person who is capable of more skill or a higher type of skill than is called for on his job, but who lacks training in this skill, may be unhappy because his work is boring. So vocational education may help the individual to qualify for and succeed in work which is more nearly commensurate with his potentialities. Vocational education, thus, should result in greater job satisfaction.

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[4] William H. Kilpatrick, "Character and the New Society: Moral Obligation of Vocational Guidance and Education," *Occupations*, 8: 395–8, Feb., 1935.

The relationship between skill and job satisfaction has been reported on by Hoppock,[5] who has made thorough reviews of studies of job satisfaction covering fifteen years or more. He points out that a study by Fairchild showed a positive relationship between skill and satisfaction of 75 workmen in four metal manufacturing plants, and a study by Kennedy and Castore of 873 supervisors in industries in Pennsylvania showed that these workers mentioned most frequently as a source of satisfaction the quality of production or good workmanship and quantity of production or meeting shipping dates. His review of a study by Hull and Kolstead, with returns from 43,962 subjects, showed that morale tended to increase with level of skill. Further studies by Super and by Centers showed higher proportions of skilled workers who were satisfied with their jobs than of semiskilled workers and the most dissatisfied of all to be the unskilled workers. Of course, there are other factors which are related to satisfaction. But the evidence seems to point toward the conclusion that if occupational competency could be increased workers would be better satisfied with their jobs.

Vocational Education and Success in School

Youth of secondary school age who are making progress toward a definite vocational goal through acquisition of fundamental and/or specific abilities are motivated toward school work. Those who are aiming toward vocations calling for college or university training are able to see the relationship of much that they are studying to later work in college. Youth who are not college bound will be much better able to see the relationships of all school work to their life needs or goals if they gain an understanding of what they will need to be able to do at work and have the experience of successfully mastering some of the abilities needed in this work.

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[5] Robert Hoppock, *Job Satisfaction*, New York, Harper and Bros., 1935, p. 133. Also see reviews by Hoppock and others in *Occupations*, 19: 24–28, O. '40; 23: 412–15, Apr. '45; 27: 167–75, D. '48; and 29: 13–18, O. '50.

A few examples may help to illustrate how this comes about. The student in training for retail selling works part-time in a store. She soon realizes the importance of ability to express herself to the customer and thus is motivated to study speech and other communications skills. The boy studying agriculture learns very soon that soil is basic to successful farming. The analysis of soil and use of fertilizers both involve applications of chemistry. So does the use of feeds in meeting nutritional requirements of livestock. Thus, the prospective farmer studies chemistry partly to gain understandings which will have a practical value to him. The boy who is gaining work experience in an industrial occupation through a cooperative school-employer training program gains new experiences with his employer and other employees. Dillon studied the school records of 611 students who were participating in supervised work experiences. He found that "the percentage of those who improved in scholarship between the fall term and the spring term was considerably in excess of the percentage who regressed."[6] On the basis of this and other evidence he concludes that "work experience increased the interest of these students in school and brought about a better adjustment to school."[7] Work experiences raise questions in the student's mind about organized labor, commercial law, and public welfare, as well as purchasing power, price trends, sources of raw materials, and related matters. This interest supplies some of the motivating force which can be used by other teachers who are dealing with these matters.

In the past quarter of a century there has been a great deal of discussion among school people, particularly curriculum specialists, regarding the core curriculum. The curriculum, as envisioned by these leaders, should have as a core the social-civic concerns of the class. But there has been a tendency among the advocates of the core curriculum to overlook the student's vocational interests and the vocational activities in which he is already engaged as a starting place for curricular activities which would be much more meaningful and which might furnish a stronger motivation. Proposals for using vocational interests and activities as the core for the curriculum are offered by Miller[8] and Lurry.[9]

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[6] Harold Dillon, *Work Experience in Secondary Education,* New York, National Child Labor Committee, 1946, p. 17.

[7] *Ibid.*, p. 68.

It is recognized that not all youth at the secondary school age will have well-defined vocational interests; however, the school cannot ignore the well-formulated occupational goals that many students have. Nor should educational programs relating to them be postponed if they can satisfactorily be provided at the level of the secondary school. Students' occupational goals could furnish the kind of strong impetus to learning which all good school people desire.

One of the unfounded fears, not only of some school people but also of others, is that if vocational subjects are taken at the secondary level and the individual later enrolls in an institution of higher education he will be handicapped by not having the "regular" or college-preparatory subjects. It is true that colleges and universities set their own admission requirements and that some students would not be accepted if they lacked certain subjects. There is no evidence at the present time, however, that would support the fear that these students would not succeed as well in college. Douglass, after reviewing studies relating to this question concludes:

> It has been shown time and again by careful investigations that the pattern of subjects taken in the high school has little relationship to success in college, granted of course that for a few technical curricula, such as those of the engineering college, certain subjects like mathematics are indispensable.[10]

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[8] Van Miller, "Building the Curriculum Around Vocational Interests," *The Clearing House*, 22: 468–471, April, 1948.

[9] Lucile L. Lurry, "The Contribution of Home Economics in Selected Problem Areas in the Core Curriculum of the Secondary School," Unpublished Doctoral Dissertation, Columbus, Ohio, Library, The Ohio State University, 1950.

[10] Harl R. Douglass, *Modern Administration of Secondary Schools*, New York, Ginn and Co., 1954, p. 249.

Other studies have been made by Proctor and Bolenbaugh at Stanford, Yates at Kentucky, Bing at Missouri, and others in which the college achievement of students who took vocational subjects in high school was compared with students who had not taken such subjects. Where the measured scholastic aptitude of both groups of students was constant no significant difference was found between them. Students who take vocational subjects in high school are not handicapped thereby, should they subsequently decided to go to college.

Courses organized for specific training in an occupation may help the student in the secondary school to "find himself" in school. The student begins to see the relations of other school subjects to his own life plans. So his own vocational objective becomes clearer to him. Although it is expected that the student will enroll in a vocational course only after a tentative occupational choice has been made, it is still true that the course may help him to validate the choice and will promote better vocational adjustment.

Probably one reason why college students with school backgrounds in vocational education succeed as well as other students is that through the vocational subjects, if properly taught, they develop some of the same abilities that are usually claimed as learning outcomes of the academic or college-preparatory subjects. One of these is the ability to think scientifically. Any vocational subject that makes applications of science will lend itself to the use of thought questions in demonstrations and discussions. These questions can bring out the explanation of a phenomenon and the prediction of results from a given set of conditions. Teachers of agriculture and of homemaking make a great deal of use of problem-solving method in their teaching. The vocations represented in the courses they teach and in others of a vocational type involve the making of many decisions of a managerial or operative nature. In learning to make such decisions students get experience in finding problems, drawing hypotheses, gathering and weighing facts, and drawing conclusions, all in connection with an actual situation in which they are working on the farm, in the home, in the store, or in the shop. Thus vocational education at its best directly contributes to one of the basic needs of all students in the secondary school.

Other qualities of leadership are developed through related organization activities. For example, most schools offering vocational agriculture and homemaking sponsor local chapters of the Future Farmers of America and the Future Homemakers of America. The members of these organizations select, plan, and conduct their own cooperative and competitive activities. They receive and put to use training in leading discussions, in correct parliamentary procedure, and in public speaking. These are necessary abilities in the vocations for which they are preparing and for their future roles as citizens. It is quite typical for many of the officers of general high school student organizations to be drawn from the student leadership developed in the FFA and the FHA.

Vocational Education and the Standard of Living

One of the basic needs of man is the ability to achieve the standard of living to which he should aspire. Youth are seeking just such an ability. American inventiveness and ability to produce have shown the American people that the material, cultural, and spiritual means for a better life are within their reach if they can earn them. Youth who desire to increase their earning power should be helped to do so. Follow-up studies of graduates who took vocational courses show these graduates to be, for the most part, employed in the occupational fields for which they were trained and succeeding in them. For example, the Regents' inquiry of the State of New York found that 81.5 percent of the boy graduates and 53.3 percent of the girl graduates of vocational schools were employed full time compared to only 60.3 percent of the boy graduates and 40.2 percent of the girl graduates from general high schools. Also, more than twice as high a percentage of boy graduates from the general high schools were unemployed as were those from the vocational high schools.[11] This inquiry also found that "former vocational pupils seemed more optimistic about their vocational future than did the former pupils of general high schools." [12] A study of 510 graduates from 12 schools in a Pennsylvania area over a ten-year period was made by a committee of the American Vocational Association in 1939. This study illustrates the validity of occupational choices and the contribution of vocational education to raising the standard of living. Fifty-four percent of the agricultural graduates were found to be engaged in farming. Four-fifths of the "aggregate time" of the married girl graduates was found to be devoted entirely to homemaking while one-fifth devoted part time to homemaking. Thirty-four percent of the industrial graduates obtained work directly related to the trade studied, and 11 percent obtained employment in related trades. Those working in related jobs obtained $2.00 per week higher wages than those working in unrelated jobs, or approximately $100 per year.[13] A Virginia study is reported comparing 136 farmers who had studied vocational agriculture in high school with 69 who had not, but who were comparable to them in other characteristics. The farmers who had received training were earning an average of $311 more per year. In six out of nine enterprises they were securing larger yields.[14] While there probably are cases of schools with follow-up records not as good as these studies show, the general record of students who received specific vocational education at the secondary level appears to be good.

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[11] Thomas L. Norton, *Education for Work: The Regents' Inquiry*, New York, McGraw-Hill Book Co., 1938, p. 18.

Such courses as homemaking and agriculture make a distinct contribution to raising the standard of living in ways other than through increasing earning power. In homemaking, students learn how to improve the appearance of the home to make it more cheerful and suitable for developing wholesome home life. They also learn how to plan for use of time to reduce drudgery and conserve time for cultural pursuits. Future homemakers learn how to plan and improve family recreation and to improve family relationships. In agriculture, students learn how to landscape the home grounds, to provide a better food supply, and to make better use of farm and home conveniences. They develop safety habits about the farm and home. Through leadership abilities developed they learn how to conduct farm organizations, including cooperatives, which are all concerned with improving farm and rural living.

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[12] *Ibid.*, p. 33.

[13] Committee on Research, American Vocational Association, *Occupational Adjustments of Vocational School Graduates*, A.V.A. Research Bulletin, No. 1, June, 1940, Washington, D.C., The Association, 1940.

[14] Walter S. Newman, *The Earning Ability of Farmers Who Have Received Vocational Training*, Federal Board for Vocational Education, Bul. 167, Washington, D.C., U.S. Government Printing Office, 1933.

Vocational education helps to create in youth a desire for a better standard of living. It also increases earning power and the ability to achieve a high type of community and family life.

The Drop-Out Problem

The fact that many pupils who enter high school do not graduate has a very definite bearing on the needs of youth for vocational education. Statistics show that the high schools of this country were only 62.5 percent efficient in holding the ninth grade students until high school graduation in 1946–50. This holding power was 58 percent in 1936–40. Data presented by the U.S. Office of Education show upon analysis that 11.6 percent of pupils entering the ninth grade in 1946 dropped out before the second year. Another 13.7 percent withdrew before the eleventh grade and another 8.1 percent before the twelfth grade. There was another mortality before graduation of 4.2 percent, thus leaving only 62.4 percent of the 1946 ninth grade students who actually graduated in 1950, four years later.[15]

Dillon's study of school leavers shows about the same picture. Out of 1021 who left school during one of the four years of high school he found 305 who left during the ninth grade, 429 during the tenth, 227 during the eleventh and 60 during the twelfth.[16] Significant for purposes of this discussion are the reasons given by these drop-outs for not continuing in school. The most common reason for leaving that relates to the school was that they preferred work to school, (36 percent) and second was lack of interest in school work (11 percent).[17] The suggestions of these school leavers for changes in the school program which ranked high in frequency were "provide work experience," suggested by 23 percent; and "specific vocational instruction," suggested by 15 percent.[18] There are, of course, many other factors associated with drop-outs and the real reasons for leaving school are very difficult to determine. Evidence from studies of the holding power of the schools is inconclusive on the question of whether it could be increased by more or better offerings in the fields of vocational education. There are some indications that students who do not enroll in available vocational courses remain in school longer than those who do. This may be due to their original intention to continue their education beyond high school. The type of person more apt to take a vocational course or to attend a vocational school may also be the type who will be more inclined to drop out of school. Since vocational courses increase the individual's ability to get a job, such courses might, in periods of scarcity of trained workers, help to pave the way for an individual to terminate his schooling in order to go to work.

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[15] *Statistical Summary of Education, 1949–50, Biennial Survey of Education in the United States—1948–50, Chapter 1*, Washington, D.C., U.S. Government Printing Office, 1953, p. 8, 20.

[16] Harold J. Dillon, *Early School Leavers—A Major Educational Problem*, New York, National Child Labor Committee, 1949, p. 26.

On the other hand, since apparently there is a fairly large proportion of the school drop-outs who testify to a dislike for school work (of the type available to them) there is a strong probability that improvement of the vocational offerings would help to lower the mortality.

Shortcomings in Routes by Which Some Vocations Are Entered

In a previous chapter the drawbacks of dependency on methods of securing job skills other than through planned instruction were pointed out. Parents can, in some instances, provide some training. However, they are not trained teachers, do not themselves possess all the "know-how" necessary, and may easily fall behind the advances of technology. Apprenticeships are not available in many occupations, particularly the newer ones. They are not available to the boy on the farm wanting to enter farming or to the girl in the home. Furthermore, what these youth also need is assistance in becoming established as a farmer or as a homemaker.

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[17] *Ibid.*, p. 54.

[18] *Ibid.*, p. 57.

It is recognized that training programs are now operated by progressive industrial establishments. If the school fails, however, to do what it could to provide the specific occupational training needed by youth who have left school and are seeking work, youth may be forced to seek acquisition of competency by pick-up methods. Here the learner is limited to observation of workers performing their tasks without explanation of what they are doing and why, and to trying to emulate what he sees. This observation is not possible in many instances where visitors are not permitted. After much trial and error some individuals may succeed in gaining a modicum of skill in some of the less complex jobs. However, the pick-up method for securing occupational competency wastes time of the learner, often wastes the materials used, and in the end is costly to the consumer. Society has insisted on abandonment of pick-up as a method of training for the professions but has not yet outlawed this method for most sub-professional vocations. To force youth to resort to such a method of learning job skills is a dereliction of duty which is inexcusable for a society with abundant resources. A country such as ours can ill afford to force its youth to shift for themselves in this matter.

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Chapter 15

CHARACTERISTICS OF VOCATIONAL EDUCATION IN THE SECONDARY SCHOOL

Those who are responsible for organizing programs of vocational education at the secondary level have as a guide the experience gained and philosophy developed by school men over the past fifty years. What some educators have learned by trial and error can be used as guiding principles in developing programs which will produce the results desired in terms of job competencies sufficient for entrance employment. The differences between practical arts and vocational education have been set forth in Chapter 5. There is need here to describe more completely the conditions which should prevail in those portions of the secondary school program designed to develop specific vocational abilities. With these essential characteristics of vocational education in mind, it will then be appropriate to describe practical programs in the four major fields, as well as to indicate some of the problems and limitations of such programs.

The Essential Characteristics of Vocational Education

One of the earlier sets of statements of principles of vocational education is that set forth by Prosser and Allen in 1925.[1] These statements have had a far-reaching effect upon vocational education in this country. Many of the present-day standards of vocational education are based on them. The following list of essential characteristics is a modification and a simplification of the Prosser-Allen list, and also embodies the experience and philosophy of teachers and administrators, as well as those of the authors.

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[1] Charles A. Prosser and Charles R. Allen, *Vocational Education in a Democracy*, New York, Appleton-Century-Crofts, Inc., 1925, pp. 194–209.

1. The teacher or coordinator is experienced and skilled in the occupation for which he is providing training.
2. The class personnel have made a tentative occupational choice on the basis of their interests, capacities, and the requirements of the occupation.
3. The environment in which the instruction is given is, or simulates, the working environment to the maximum possible degree.
4. The aim of the courses is to train present and prospective workers for proficiency in a specific occupation or family of occupations.
5. Teaching content is such as to function specifically in the occupation and is based upon competencies required in the occupation.
6. The training is placed at the grade level, and the instruction is given, when the student realizes his need for it and can readily use it.
7. The course or courses are complete enough actually to develop occupational competence for a given occupational level.

These characteristics or principles will be applied differently in the several fields of vocational education. The application of them will suggest a number of problems which will be faced in many secondary schools. It is, therefore, pertinent to discuss each one separately, pointing out its meaning and illustrating some of the problems which will need to be solved.

1. *The teacher or coordinator is experienced and skilled in the occupation for which he is providing training.* No teacher can teach what he does not know. A teacher must be able to demonstrate specific skills to students and to supervise their practice in acquiring the skills. It will not be enough for him merely to know and understand "subject matter" of the occupation. He must have worked at the jobs which he is teaching others to do. If he were not skilled in the occupation his pupils soon would discover it, and he would lose status with them. His students would not be regarded by prospective employers as having been taught by one who was experienced, and

they would find it difficult to secure suitable work. The teacher must be able to speak the language of the workers in the occupation, so he can work with them first hand to keep up to date on developments and enlist their cooperation in planning and evaluating the vocational instruction to be given.

The successful teacher of agriculture must have had experience in operating a farm, preferably of the type found in the community. If there are enterprises represented on the farms of the community with which he has not had experience he should supplement his experience by getting additional experience and/or by enrolling in college courses which provide training in the skills involved. The teacher of vocational agriculture should be a graduate in agriculture from an agricultural college. The homemaking teacher should have had rich and full experience in all phases of the vocation. A recent study has shown that richness and variety of background experiences with homes and families with children is directly related to proficiency in teaching homemaking.[2] About one third of the teachers of homemaking are married. They may not, however, be as available for teaching after they have acquired experience through marriage and rearing a family. No doubt, many such qualified teachers could be utilized part time as teachers of adult classes. The teacher of homemaking should be a graduate of a college in which she has majored in the field of home economics. The teacher or coordinator of office occupations must have had successful experience in an office occupation. He should be skilled in the use of office machines and procedures, have a knowledge of business entrance and working standards, and have a wide acquaintanceship with office employment conditions and trends. He should be a graduate of an institution with a major in business education. The teacher of trade subjects should have had successful experience in the trade which he teaches. He should be a graduate of a teacher-educating institution with a major in industrial education. It is often difficult to secure teachers of vocational industrial education who have both successful experience and professional education. In many instances schools will use successful tradesmen for teachers and will then seek to up-grade them professionally on the job. The successful coordinator of co-operative work-experience programs in retail selling must have had successful experience as a retail sales person. The coordinator of a diversified program—i.e., one involving retailing, office work, and industrial jobs—must have had successful experience as an employed worker in one, or preferably several of these fields.

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[2] Julia I. Dalrymple, "Relation of Experiential Background to Proficiency in Student Teaching in the Field of Home Economics," *Journal of Home Economics*, 46: 161–64, Mar., 1954.

In the past the supply of teachers who are occupationally competent often has been insufficient to provide enough vocational teachers to meet demands. It has been necessary to ask some prospective teachers to postpone some of their education until they have gained sufficient experience in the occupation.

2. *The class personnel have made a tentative occupational choice on the basis of their interests, capacities, and the requirements of the occupation.* It is difficult for the instructor to make a course worthwhile for pupils with a vocational interest in the occupation for which training is provided, if there are also enrolled pupils who do not share such an interest, who have no visible prospect of entering the occupation, or who cannot profit from the course. For example, a course in vocational agriculture should be composed of pupils who have an interest in farming as an occupation, and who either are living on a farm or have access to one where they may engage in farming activities. If other pupils were to be enrolled they would lack background to benefit from the instruction. If the instructor were to attempt to teach agriculture to meet the needs of the non-farm pupils not intending to farm but interested in the subject for its general values, the vocationally-oriented pupils would make little progress toward their goal. In one sense, all pupils in a homemaking course would be vocationally-oriented to homemaking, since all have been family members. We would ordinarily expect girls to be interested in several courses, however, whereas boys might be interested only in one.

In a business curriculum it is usually not necessary to enroll in a typing course beyond the first semester pupils not interested in becoming office workers. A course in shorthand should not be taken except by pupils who wish to use it vocationally. A vocational bookkeeping course should not enroll pupils who are interested in the subject only for their personal benefit. Rather, a general business course should be provided in which personal accounting, financial problems, and other related aspects of personal business for everybody could be taught. Likewise, the school should offer a course in general agriculture and make it available to all pupils as a part of the program in general education. Certain courses in the area of homemaking, particularly at the junior high-school level should be available to all who are interested, boys and girls alike. Other courses will need to be offered specifically to prepare girls for their responsibilities as future homemakers. Students should be enrolled in such courses who are seriously interested in developing those abilities and understandings that are essential to success in homemaking. If a school has a good program of industrial arts offered preceding and parallel to courses in vocational industrial education, there should be little difficulty in limiting enrollment in vocational industrial courses to pupils who have well-formed vocational interests and aptitudes in the industrial field. The application of this principle calls for an adequate program of vocational guidance and for criteria of selection which are understood by the whole school faculty. These phases are treated in greater detail in later chapters of this book.

3. *The environment in which the instruction is given reproduces, or simulates, the working environment to the maximum possible degree.* In vocational education *where* the learning takes place is fully as important as *what* learning takes place. In fact, the place where a pupil studies the occupation will determine to a very great extent what occupational skills he will acquire. For example, in business education the classroom should be an office or as nearly like an office as it is possible to make it. If a classroom contains only typewriters, then pupils will be unable to develop skills on any other office machines, and may not learn how to file and do other office jobs.

In applying this principle, schools have two alternatives. They can build and equip laboratories, classrooms, and shops that are replicas of situations in which pupils concurrently are, or will be working after they leave or graduate from the secondary school. Or they could, as suggested in Chapter 2, teach pupils in the homes; on the farms; in the stores, garages, and offices; and in the many places where people work in the many trades and industries. Schools probably should work on both alternatives. They should incorporate occupational conditions in the school environment wherever vocational courses are taught, and they should also work with the parents and employers in the community to provide ample opportunity for youth to practice the skills they need under employment, farm, and home conditions. The exclusive use of exercises rather than real jobs on which to develop skills should be avoided insofar as possible. The proven practices involved in providing good working-learning conditions for pupils, each of whom is studying an occupation in the community through cooperation between the school and employers, are described in greater detail in a later chapter.

4. *The aim of the courses is to train present and prospective workers for proficiency in a specific occupation or family of occupations*. This does not imply that there may not be other aims or other learning outcomes which would contribute to the general education of the individual. It does imply that the teacher of the courses should determine the methods of teaching which he uses on the basis of whether they will result in acquisition of marketable occupational abilities or in merely the acquisition of subject matter about the occupation. Teaching a boy to farm is a far different matter from teaching him about farming. It implies a great deal of doing on the part of the learner. No teachers of any vocational courses can be subject-centered. The courses should be occupation-centered as well as pupil-centered.

This concept implies that the teacher will select the subject matter in relation to the needs of the occupation and the individual in it, rather than on the basis of what he knows or what is generally known about it.

One of the very real handicaps under which teachers of vocational courses labor is the lack of understanding of the aims of courses on the part of the school staff and possibly on the part of the school superintendent, as well as others in the community. It is not uncommon, for example, in a school which has a number of shops, for the staff to conclude that vocational education must, of course, be taking place in these shops. Or the staff members may not actually have much of a notion as to what is supposed to happen in what they may refer to as "shop courses" and they may, therefore, think that pupils who do not succeed in "non-activity" courses, could if transferred to the "shop teacher," somehow learn a trade. Typically, their thinking may stop at this point without proceeding to a decision of whether that is the intent of the course and if so, for *what* occupation the individual might prepare himself.

It is, of course, important to realize that much vocational education will take place after the person becomes employed full time, or after he leaves or graduates from high school. The level of occupational competency which students attain upon graduation from high school should be at least sufficient for initial employment in business or industry, for a partnership in farming, or for full-time homemaking responsibilities. It is expected that workers will from time to time re-enroll in short, intensive courses which are designed to up-grade them, or to prepare them for a higher occupational level. In the case of apprenticeable trades, students may enter an apprenticeship upon completion of the high-school program. Some schools have definite agreements whereby graduates with specific training enter apprenticeships with advanced standing.

5. *Teaching content is such as to function specifically in the occupation and is based upon competencies required in the occupation.* The most valid source of areas of subject matter to be taught in a vocational course is to be found within the occupation itself. This source embodies not just the activities performed by the rank and file of workers in the occupation, but rather the activities performed by the highly proficient workers. This concept implies that the level of proficiency or quality of performance needed must be considered

in setting up courses designed to develop occupational competency. In the area of agriculture the practices to be taught come from three sources. First, they come from the more successful farmers in the community. The enterprises of greater importance in the community should receive greater attention in the courses. These have been arrived at over many years of experience by the successful farmers of the community. The practices of management, production, and marketing followed by the more successful farmers should be considered. One device for doing this and for getting advice on the content of the course in agriculture is to organize and use an advisory council. A second source is the analysis of successful practices among farmers conducted by the state agricultural colleges. These practices are discovered by personnel of the Cooperative Extension Service working in the field and by analysts of cooperative farm-accounting projects. A third source is the state agricultural experiment station which bases its research work largely upon the enterprises and farming problems found to be important in the state.

Counterparts of these three sources are also available in planning content of courses in homemaking. Advisory councils have been used to a lesser extent in homemaking education. The problems of pupils in the several areas of homemaking should be identified, however, and those to be used as a basis for instruction carefully selected through pupil-teacher planning procedures. Greater use can be made of pupil-teacher-parent planning in agriculture and homemaking than in other vocational fields for the reason that the pupils have already had considerable experience in the occupation. That is, the adolescent farm boy—and sometimes the girl—has already done considerable farming and quickly grasps the importance of such areas of study as sanitation, disease prevention, and feeding of dairy cattle. The adolescent girl has shared in homemaking experiences as a family while enrolled in school. She is aware not only of many of her personal needs but also of many problems encountered in the home while working with her mother, such as meal planning, child care and training, and repair of clothing. This background is often shared by boys.

In the trades and industries the basic principle is the same, but emphasis is different. The secondary school student and teacher are not in a position to benefit as much from pupil-teacher planning because of lack of experience in the occupation on the part of the pupil. The teacher, therefore, should seek out the master tradesmen or foremen for consultation. For example, in the printing trades the teacher should organize and use a committee of printers to aid in outlining teaching content in printing. Likewise, several operators of garages could be used as an advisory committee to set up a curriculum for training auto repairmen. The trade teacher should be trained and experienced in "trade analysis," which is a procedure for identifying and listing the operations which the neophyte must learn to become proficient. This analysis will be helpful in determining content and the sequence in which the operations should be mastered. A number of job descriptions are published by the United States Employment Service. The *Dictionary of Occupational Titles* published by that service contains information on a wide variety of occupations which should be helpful in course building.

In business occupations the determination of content from the actual work expected of the employee is very similar. However, we find variations, depending on the occupation considered. In office occupations, the job of the stenographer in typing and stenography skills is pretty well established. The other jobs of office workers in a given community, such as operation of office machines and bookkeeping, will be different from one community to another, or even from one office to another and therefore should be studied. Information from employed office workers and employers should be gathered in order to set up suitable content in these occupations. The jobs to be learned in distributive trades also are not standardized. It will require close cooperation between teacher or coordinator and store managers to identify the jobs which their employees must learn and the order in which they should be learned. In Chapter 17 this procedure is described in greater detail.

6. *The training is placed at the grade level, and the instruction is given when the student realizes his need for it and can readily use it.*

As indicated earlier, pupils who have had extensive experience on the farm and in the home may be ready to begin vocational courses in these fields earlier than pupils interested in fields in which they have had little experience. The length of the sequence—that is, the number of years in school that can profitably be used, or that are needed to train a youth for entrance employment—will necessarily determine when the training is to be given. A two-year program should ordinarily be available to pupils during the last two years that they will be in full-time enrollment so that skills learned in the courses may not be lost. Vocational instruction should not be terminated before a youth is of legal age to be employed at the occupation for which he is preparing, or before the age at which employers will hire him. Much specialized work should be postponed until the individual is employed or somewhat advanced in his work.

7. *The course or courses are complete enough actually to develop occupational competence for a given occupational level.* The occupational competence envisioned here, with the secondary school in mind, is not the level which the youth hopes ultimately to attain. Nor is it a level of competence which the employer or society in general expects. The competency we have in mind may be illustrated in the several vocational fields. In employment in business and industry sufficient skill should have been developed for initial employment at occupations for which training of the type involved is desirable. In apprenticeable trades we would think of employment as an apprentice. In agriculture the farm boy should have built up sufficient equity in farming and have developed sufficient managerial competency to be ready for a farm partnership arrangement. For youth with smaller farming equity and/or lacking in managerial ability, either potential or actual, we would think of employment on a farm. For the girl graduating with preparation in homemaking we would think of beginning homemaking as a bride or part-time homemaking while living at home and/or working at a remunerative occupation.

The adults engaged in the occupation, as indicated previously, can assist in determining the number of courses or years of instruction that should be offered. In agriculture, four years in the secondary school is typical. In homemaking two or three years is common, with most of the courses being offered in the earlier years of the high school. In a sense this violates the principle stated earlier, that the instruction should be given near the time that the person starts working full time in the occupation. As a result of a five-year study in twenty schools in Minnesota, Arny found that "the girls in grades eleven and twelve showed significantly greater gains during eight months of instruction than did any other groups, except ninth-graders with no previous school instruction," and that "a very much higher percentage of the senior high school girls than those in grade nine expressed a favorable attitude toward home economics." [3] However, a sizable number will marry before finishing high school. Furthermore, as revealed earlier in this book, women are making up an increasingly larger proportion of the labor force. Therefore, many girls will be interested in a second vocation, one in which they can earn a living or can supplement family income. With this in mind, many of them may wish to enroll in other vocational courses. In co-operative work-experience programs of distributive education and office training, one-year or two-year courses are common. In trade and industrial courses in the high school we find most courses are either two or three years in length. Pertinent courses in a series should be available from the time a pupil starts specialized training. These courses should provide preparation in all the competencies involved in a given occupation which the learner will need to acquire for initial employment.

The Secondary School Program in Vocational Agriculture

The program of general or non-vocational agriculture is dealt with in Chapter 16. This section is concerned with the instructional program for prospective farmers and for closely related occupations. If the foregoing characteristics are applied to the program of vocational education in agriculture at the secondary level the broad objective should first be considered. Suggested objectives for vocational agriculture have been drawn up by a national committee of leaders in agricultural education as the following abilities:

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[3] Clara Brown Arny, *The Effectiveness of the High School Program in Home Economics*, Minneapolis, The University of Minnesota Press, 1952, p. 276.

1. To make a beginning and advance in farming
2. To produce farm commodities efficiently
3. To market farm products advantageously
4. To conserve soil and other natural resources
5. To manage a farm
6. To maintain a favorable environment.[4]

These are broken down to indicate more specific abilities to be acquired under each major heading. It would probably be well to add another ability which is only implied in any of these six, namely, to select, operate, and maintain essential farm equipment and structures. Another one which should be recognized is the ability to make occupational and educational adjustments in relation to agriculture. This is important if we recognize enrollment in the first course as based upon an occupational choice which is tentative, and that an increasing number of opportunities in occupations closely allied to farming are becoming available. The foregoing objectives should be used only as a guide in planning the program in vocational agriculture at the secondary level in the community school. Realistic objectives for the particular community should be formulated only after study of community needs and interests by an advisory council of farmers and others. The secondary school program divides logically into four phases, each of which is essential to the whole. They are: (1) individual instruction on the farm—supervised practice; (2) instruction in the class-room laboratory; (3) instruction in the farm-mechanics shop; and (4) intra-curricular activities—the local chapter of Future Farmers of America or New Farmers of America. These will be discussed separately.

Instruction on the farm is placed first because satisfactory in-school instruction in farming can be based only upon farming activities of that should be offered. In agriculture, four years in the secondary school is typical. In homemaking two or three years is common, with most of the courses being offered in the earlier years of the high school. In a sense this violates the principle stated earlier, that the instruction should be given near the time that the person starts working full time in the occupation. As a result of a five-year study in twenty schools in Minnesota, Arny found that "the girls in grades eleven and twelve showed significantly greater gains during eight months of instruction than did any other groups, except ninth-graders with no previous school instruction," and that "a very much higher percentage of the senior high school girls than those in grade nine expressed a favorable attitude toward home economics." [3] However, a sizable number will marry before finishing high school. Furthermore, as revealed earlier in this book, women are making up an increasingly larger proportion of the labor force. Therefore, many girls will be interested in a second vocation, one in which they can earn a living or can supplement family income. With this in mind, many of them may wish to enroll in other vocational courses. In co-operative work-experience programs of distributive education and office training, one-year or two-year courses are common. In trade and industrial courses in the high school we find most courses are either two or three years in length. Pertinent courses in a series should be available from the time a pupil starts specialized training. These courses should provide preparation in all the competencies involved in a given occupation which the learner will need to acquire for initial employment.

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Instruction on the farm is placed first because satisfactory in-school instruction in farming can be based only upon farming activities of members of the classes. The term "supervised practice" is used to denote the activities of an agricultural nature carried on by these members in a working setting. These activities will be primarily those involved in farming although other agricultural activities can readily be envisioned—so the term "supervised farming" is more commonly used today.

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[4] *Educational Objectives in Vocational Agriculture*, Vocational Division Monograph, No. 21, Washington, D.C., U.S. Office of Education, 1940.

These farming activities may be of four types. "Production projects" are business ventures in productive farming in enterprises represented in the community and on the home farm of the pupil as well as in the type of farming in which he expects to engage. These will involve either full ownership by the boy or ownership in partnership with his father. For example, the boy purchases a sow and raises a litter of pigs to market age, sells some, and keeps some gilts for expansion of the enterprise the following year. This is the type of supervised farming activity which will make the most direct contribution to objective number one, previously listed.

"Improvement projects" include activities of two types: enterprise-wide activities designed to place the enterprise on a more profitable basis, and activities designed to improve or increase the real estate value of the farm. An example of the former is a dairy improvement project. In this project the boy keeps production records on the home dairy herd or a herd of another farmer, involving the weighing of milk, testing individual cows' milk for butterfat, and computing records for each cow in the herd for a year. He also improves the feeding practices, identifies cows to be culled and cows whose progeny are to be kept, improves sanitation and housing facilities, makes or keeps in repair necessary equipment, and carries on other related activities. All this is done in cooperation with the instructor and the boy's father. An example of the second type of improvement project would be the planning and carrying out of a program to control erosion in a field or the planning and carrying out of a plan for landscaping the home grounds. In these projects the boy has no investment and does not realize any monetary return.

The third type of supervised farming activity is the doing of "supplementary farm practices." They are supplementary in the sense that they are not already involved in the production or improvement projects planned or under way. These farming practices are those which the boy has not previously learned to do; which he may have done previously but not skillfully or with use of best procedures, and now wishes to improve upon; or which are involved in a new enterprise or other phase of farming. Examples are: culling the home poultry flock, testing soil in certain fields for acidity, introducing an improved variety, or repairing a farm machine.

The fourth type is "placement for farm experience." This is suitable for boys for whom adequate facilities on the home farm or other farms are not available for satisfactory supervised farming activities of the other three types mentioned. The student secures work on a farm during out-of-school hours and in summer in order to gain practical experience in farming and to practice what is studied in the classroom. It is a rather temporary expedient in relation to the ability of making a beginning and becoming established in farming. The boy should probably not continue to be enrolled in agriculture for more than one or two years unless he can find an opportunity to begin farming on his own on at least a small scale.

As soon as it is known that the boy will enroll in vocational agriculture the instructor, the boy, and his father get together to select and make tentative plans for the farming activities of the boy. If this is done all boys will have a realistic vocational basis for the class instruction. Without it, the instruction may tend to become academic and bookish and probably will not contribute materially to the objectives which have been suggested. The supervised farming program is a rich source of problems which can be used as a basis for classroom instruction. It helps to motivate the student in his work. It provides him an opportunity to earn some money. It helps him to make a beginning, leading to establishment in farming. It provides concrete evidence of the result of instruction which the community, and particularly the parents, can see, thus aiding in the public relations of the school and community.

As indicated, instruction in the classroom-laboratory should grow out of the activities in the supervised farming program. Much of the instruction in the classroom will involve planning for activities in the farming program, keeping and interpreting records in relation to it, and evaluating the student's progress. Some classroom work will also be based upon or grow out of activities of the local chapter of Future Farmers of America or New Farmers of America, particularly cooperative class projects involving production. Field trips and group work on farms is a part of the class instructional program.

Because of the basis of supervised farming for classroom instruction significant changes have taken place in course building in vocational agriculture. Two will be mentioned here. The first is what is often referred to as organizing courses on a cross-sectional pattern. Each course would include instruction on both livestock and crops enterprises, as well as soils and management problems, and farm mechanics if they are part of the students' farming programs, rather than being restricted to animal husbandry in one year and farm crops in the next, and so on. The second is the practice of teacher and pupils cooperatively selecting objectives and units for each course based as much as possible on common activities in supervised farming programs and on group activities of the class members.

Instruction in the school farm-mechanics shop has several purposes. It is conducted to develop specific mechanical skills needed and used by farmers in their activities in connection with machinery and equipment. It also provides an opportunity for farm boys to construct and repair equipment and machinery for the farm and home, particularly that needed in connection with their supervised farming programs. Another outcome of instruction in the farm-mechanics shop is the development of confidence on the part of the boy and his father, and interest in continuing farm mechanics work on the home farm which often results in the development of home-farm shops.

The Future Farmers of America and the New Farmers of America are the organizations of boys who are enrolled in vocational agriculture in the secondary school. Chapters of these organizations are established in nearly every school which offers vocational agriculture.

The New Farmers of America is found in schools enrolling Negroes. In 1953–54 there were 8,793 chapters of F.F.A., with a total membership of 371,592. In 1952–53 there were 1,008 chapters of N.F.A., with a total membership of 35,733. Because of the similarity of the two organizations, in the following discussion they will not be differentiated. The F.F.A. will be used here to designate either organization.

The local chapter of F.F.A. is an integral part of the program of vocational agriculture in most schools; however, it is administered much as any departmental club or other school activity. The teacher of vocational agriculture is the local adviser. In typical chapters the officers and members annually set up a program of activities. This includes several types. First, there are those which are calculated to stimulate and aid members in developing their supervised farming program, such as project tours, awards, loan funds, and aid in securing breeding animals. Then there are activities which are of a community service nature such as helping to conduct a community fair, conducting demonstrations, or otherwise assisting with programs of farm groups, or assisting the school with a rural-school pupils' visitation day. These chapters also engage in production activities, with responsibilities assigned to individual members and committees. Typical of these are raising broilers, growing wheat, and producing certified seed. Other cooperative activities engaged in are typified by cooperative loan funds, cooperative ownership of breeding stock, and ownership and use of a truck or other machinery by the members of the chapter. One of the objectives of these activities is to understand and apply the principles of cooperation so essential to the economic welfare of the farmer. Other chapter activities of the F.F.A. include leadership development through conferences, camps, competitive speaking, demonstration, and parliamentary procedure contests, and other contests. Avocational interests and recreation abilities are developed through the chapter's recreational activities. Other activities help to promote scholarship and thrift among members.

The Secondary School Program in Homemaking

National leaders in homemaking education seem pretty well agreed that the basic goal of homemaking education is to help the individual to live a more useful and satisfying personal, family, and community life.[5] Contributions to this objective should be made at the elementary, junior and senior high school, and adult levels. The nature of courses in general homemaking comparable to others in practical arts and of courses in family living is dealt with in Chapter 16. Much of this instruction is slanted toward personal needs and relationships in the parental family. In noting actual school practice in offering courses in homemaking the increasing vocational emphasis in successively higher school grades may be observed in the instruction and in the nature of activities and experiences of pupils. One leader in homemaking education lists the following purposes of homemaking:

> 1. To help students to achieve a satisfying and functioning philosophy of life as it relates to personal and family living.
> 2. Developing a wholesome personality and acquiring satisfying human relationships.
> 3. Broadening and enriching life.
> 4. Acquiring the techniques and skills needed to meet successfully the problems of immediate personal and family living.
> 5. Increasing the general employability of pupils preparing for vocations outside of the field of home economics and the special preparation of those who have found a vocational interest in home economics.[6]

The general or over-all objective of vocational education in homemaking has been stated as: "to provide instruction which will enable families to improve the quality of their family life through the more efficient development and utilization of human and material resources."[7] With increasing orientation toward the prospective homemaker's future family responsibilities a more detailed statement of objective may be considered. The following has been suggested by Williamson and Lyle:

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[5] *Homemaking Education in Secondary Schools of the United States*, Federal Security Agency, Office of Education, Washington, D.C., U.S. Government Printing Office, 1947, p. 1.

[6] Ivol Spafford, *Fundamentals in Teaching Home Economics*, New York, John Wiley and Sons, Inc., 1942, p. 20–22.

> . . . homemaking education means equipping an individual, or aiding an individual to equip herself: (1) to establish a home, a family, and the material surroundings for that family; (2) to maintain this home, for the comfort and satisfaction of each member of the group and (3) to improve this home and its family life both in relationships and in material surroundings and activities.[8]

In line with the foregoing statements of general objectives of vocational education in homemaking, ten basic areas of content have been identified as follows:

1. Selection, preparation, serving, conservation, and storage of food for the family.
2. Selection, care, renovation, and construction of clothing.
3. Care and guidance of children.
4. Selection and care of the home and of its furnishings.
5. Use and conservation of home equipment.
6. Maintenance of health.
7. Home care of the sick, including first aid.
8. Selection and purchase of food, clothing, equipment, and furnishings.
9. Management of human and material resources available to the home.
10. Maintenance of satisfactory family relationships.[9]

These areas of content with an additional area of personal development, provide the framework for building courses in homemaking at the secondary school level as well as for adult homemakers and out-of-school youth. It is important to secure competent teachers education. Comprehensive means one which provides training in all four fields discussed in this chapter. It is usually easier to provide adequate programs in agriculture and homemaking in small schools than it is in the other vocational fields.

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[7] Mimeo, release from Department of Health, Education, and Welfare, Office of Education entitled, "Public Reimbursable Vocational Education Programs," Jan., 1954.

[8] Maude Williamson and Mary S. Lyle, *Homemaking Education in the High School*, New York, Appleton-Century-Crofts, Inc., 1954, p. 36.

[9] *Homemaking Education in Secondary Schools of the United States*, *op. cit.*, p. 1.

The greatest limiting factor of all in many communities is an inadequate supply of qualified teachers of vocational subjects. The shortage of teachers of homemaking can be accounted for in part by a high turn-over rate due to marriage and to the rapid growth in programs and enrollment. In the other fields the opportunities for qualified teachers in the occupational field in which they are teaching contribute to the shortage. Another factor is the limited number of institutions in each state that are staffed and equipped to prepare vocational teachers. An inadequate program of vocational guidance and recruitment at the community level probably is in part responsible for the shortage. At any rate, one of the problems faced by the community school in expanding or developing programs of vocational education will be that of finding a well qualified teacher. The community could contribute to a solution of this problem by identifying good potential teachers and by making the opportunities in the profession known to such persons.

Organization of the Secondary-School Program of Vocational Education

In working out a satisfactory organization of programs of vocational education at the secondary level, an attack on the problems just presented must be made. Administrators should not be bound by academic patterns or tradition in setting up these programs. It may be necessary in some schools to set up first the schedule of courses and activities for vocational education and other special education subjects and then to build the rest of the school schedule around them. Gilchrist and Forbes recommend the following:

> A block of time in the school day, possibly one hour in length in Grade X, two hours in Grades XI and XII, and half-time in Grades XIII and XIV is set aside for vocational and pre-vocational subjects. . . . All stu-

dents from Grade X through Grade XIV would be engaged in some phase of vocational preparation although the specific subjects would vary.[26]

This block would also provide for special education needs, other than vocational, of students who would not be preparing for occupations which would be entered upon leaving school, such as those preparing for college.

The organization of vocational courses in the secondary school requires clear-cut distinction between practical arts courses and vocational courses. In business education this distinction has not always been clearly made or understood. The result has been the perpetuation of programs which have fallen short of many of the characteristics or principles set up earlier in this chapter. Courses in general business, in industrial arts, and in general agriculture should ordinarily precede the vocational courses in these same fields. In some cases they might be offered during the same years in school as the vocational courses but would be taken by different pupils. Courses in homemaking which are more vocational in character should be taught at successively higher levels.

In setting up schedules of courses it must be borne in mind that the best use of teacher time will be in connection with activities that the teacher is best qualified to handle. If it develops, for example, that there are three courses to be taught in vocational agriculture, the teacher should not also be assigned to teach academic classes. Rather, since there will be a need for classes for young farmers out of school and for adult farmers the teacher should be allowed time for these activities and for supervision of farming programs and F.F.A. activities. There also is a probability that he might be needed to teach one or more courses in non-vocational agriculture. In every community where vocational agriculture should be taught probably use should be made of the full time of the teacher in agricultural educawho are trained in all these areas. There is also need for competency in understanding pupils' needs and those of their families as well as in cooperatively selecting goals in these ten areas.

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[26] Robert S. Gilchrist and Robert J. Forbes, "Designing Programs to Meet the Special Needs of Youth," The Fifty-Second Yearbook, National Society for the Study of Education, Chapter 8, Part I, *Adapting the Secondary School Program to the Needs of Youth*, Chicago, The University of Chicago Press, 1953, p. 146.

In realizing the objectives of homemaking education, experiences should be provided which will help the pupils to apply learnings in at least three types of situations: (a) the pupil's personal situation, involving her personal problems, adjustment to family activities and plans, and adjustment to others in the community; (b) the pupil's future plans as a homemaker, involving acquisition of essential abilities as a future wife and mother; and (c) the occupational field into which acquisition of certain homemaking skills may lead.[10] The nearer pupils are to adulthood the greater the emphasis should be on situation "b." Situation "c" will apply to some pupils but probably not a large number.

This suggests, then, that homemaking education at the secondary level should be an *experiencing* program. These experiences may be grouped into four phases: home experiences, class experiences, community experiences, and Future and New Homemaker Association activities. A home experience in this context is defined as "a learning experience which could not be easily duplicated in a classroom situation, and [which] involves new learning as well as increased skill."[11] The program of home experiences, sometimes referred to as "home projects," is comparable to the supervised farming program in vocational agriculture in that it is basic to the planning of the instructional program. "Home practice" is a term commonly used to denote home experiences of small scope and which may be a repetition of school activities. "Home projects" usually refer to planned-for experiences of larger scope and conforming to accepted concepts of projects.[12]

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[10] *Ibid.*, p. 3.

[11] *Home, School and Community Experiences in the Homemaking Program*, U.S. Department of Health, Education and Welfare, Office of Education, Voc. Div. Bul. No. 252, Washington, D.C., U.S. Government Printing Office, 1953, p. 53.

[12] Maude Williamson and Mary S. Lyle, *Homemaking Education in the High School*, New York, Appleton-Century-Crofts Co., Inc., 1954, p. 215.

Understanding the pupil in relation to the home environment is absolutely essential to effective instruction in homemaking. Therefore, a program of home visiting on the part of the teachers of homemaking is called for, along with appropriate methods of instruction. It is only through such acquaintance with the homes and focus on family goals that the curriculum in homemaking can be made "family centered." [13] The pupils will be aided by the teacher and the parents in selecting objectives in relation to their own family needs, and then in selecting those experiences which will enable them to reach these objectives. Examples of such experiences are: redecorating one's bedroom or the living room, preparing a series of meals for the family, preparing and packing father's lunch, making more of one's own clothes, looking after children of relatives or friends, making the home safer, budgeting the food allowance, and developing work simplification in connection with housekeeping tasks. The teacher of homemaking will have frequent conferences with individual pupils and their mothers in the home or with groups of pupils who have selected the same home experiences.

It will be recognized that home experiences such as these involve a number of abilities or skills. Many problems will be met by pupils who successfully engage in home experiences. These should be anticipated and identified, since they should form the basis for class experiences. Personal and home experiences provide opportunity for evaluating learning in the classroom and for applying it in an actual vocational situation.

If the selection and planning of these home experiences has been well done they provide an excellent basis for selection of units of instruction and selection of classroom experiences. Since these classroom experiences will cut across many of the areas of content previously referred to, it follows that just a "clothing" course or a "foods" course will not be sufficient. In fact, the trend in secondary schools is definitely away from such specialized courses. Pupils in family-centered programs might engage in such a variety of classroom experiences during a given year as to call for the utilization of all types of facilities in the homemaking department. Many courses in homemaking commonly found in secondary schools could be greatly improved by relating the courses more closely to the home situations and by selecting appropriate experiences. There has been an unwarranted emphasis upon clothing construction in many courses when viewed in the light of the actual amount of clothing constructed in homes today. Frequently there has been an over-emphasis upon food preparation, partly because of the carryover of the traditional foods equipment in the homemaking laboratory. There has also been insufficient stress on some of the home management problems and boy-girl relationships.[14]

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[13] Esther McGinnis, "Family Centered Teaching," *Journal of Home Economics*, 44: 9–12, Jan., 1952.

The third phase of homemaking instruction, referred to as "community experiences," is an important element of a community-school program. "Community experiences" referred to in the homemaking program are similar to home experiences, except that they are usually group undertakings, and their objectives go beyond the pupils' immediate families. Examples of suitable community experiences are: assisting in a community recreation project, assisting in a community fair, preparing exhibits to be shown locally in promoting some phase of homemaking, conducting a campaign on safety in the home, and assisting in a community health drive. These activities provide a realistic basis for class activities. They help to develop group consciousness, ability to cooperate in group undertakings, and an awareness of the efficacy of group action in improving conditions affecting the family.

Many of these community experiences could be undertaken as activities under the sponsorship of the local chapter of Future Homemakers of America. This organization, open to both boys and girls who are or have been enrolled in homemaking courses in the junior or senior high school, is a relatively new national organization, having been founded in 1945. However, by July 1, 1954, there were 8,876 chapters with a total membership of 388,750. The companion organization of New Homemakers of America is found in schools enrolling Negroes in which homemaking is taught. The purposes of local chapter programs as stated by the F.H.A. are as follows:

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[14] Beatrice O'Donnell, *Taking a Look at What Girls and Boys Do in Homemaking Classes in Grades 9–12 in Michigan*, East Lansing, Michigan School of Education, Michigan State College, 1953, p. 11.

> TO PROMOTE:
> Appreciation of the joys and satisfaction of homemaking.
> Worthy home membership.
> Democracy in home and community life.
> Good home and family life for all.
> International good will.
> Development of creative leadership in home and community life.
> Wholesome individual and group recreation.
> Interest in home economics.[15]

Suggested group activities for local chapters to carry out include, among others, the following: sponsoring an international dinner; collecting patterns, essential sewing materials, and books to send abroad; planning leadership-training meetings; volunteering services to Civil Defense; sponsoring mother-daughter teas; sponsoring Dad-date night or family-talent night; giving a style show; and making a local survey of occupations requiring some knowledge of homemaking. F.H.A. activities could form the basis for a great deal of class instruction. They also will involve development of a number of abilities or skills that are important in the home or in the community.

It will be noted that a well planned program of homemaking education in the secondary school will be quite wide in scope. In addition to preparation for homemaking, this program would contribute indirectly to many of the objectives of secondary education. It is, therefore, important that there be adequate coordination of this program with others in the secondary school.

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[15] *F.H.A. in Focus*, Washington, D.C., Future Homemakers of America, U.S. Office of Education, n.d.

The Secondary School Program in Vocational Business Education

There is general agreement among the leaders in business education in this country that education in business has two functions.[16] The first one is a contribution to the general education of all students regardless of their occupational interests. The other is a provision for vocational education for students desiring to prepare for positions in business. The program of general business education is treated under the heading of practical arts in Chapter 7. This discussion will be limited to provisions which can be made in the secondary school for development of occupational competencies in the field of business.

An analysis of ideas of 373 business educators in 1949 by Enterline centered attention on the general objective and specific objectives of vocational business education. The general objective is stated as: "To develop competency in marketable business skills and techniques for which there is a need for training." Specific objectives derived from this analysis are:

1. To prepare students for certain specific business occupations to the point of employability.
2. To give a type of business training that will enable individuals to become originators in commerce, and that will contribute to an understanding of how to become successful owners and managers of small, individually-owned business enterprises.
3. To develop an employable degree of expertness in bookkeeping knowledges and skills.
4. To develop the ability and skill necessary for efficient performance in the various distributive occupations.
5. To develop those skills required to perform successfully the duties of stenographers and secretaries.
6. To prepare for employment in miscellaneous clerical occupations.
7. To develop efficiency in the use of office machines and equipment.[17]

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[16] Carlos K. Hayden, *Major Issues in Business Education*, Mono. 75, Chicago, South-Western Publishing Co., 1951, p. 94.

[17] H. G. Enterline, *Trends of Thought in Business Education*, Mono. 72, Chicago, South-Western Publishing Co., 1949, p. 9.

A word is in order regarding the degree of attainment of these objectives which can be expected at the secondary school level. Not all of these would necessarily apply to any one student. It should be recognized that the objective of preparation for owning and managing a business could only be begun or "contributed to" at the high school level. This is an occupation for which training is more appropriate at the post-high school or community college level, so far as development of abilities is concerned. The same may be said of preparation for the occupation of secretary, although much of the specific skill training could be given in the high school. Efficiency in the use of office machines and equipment will depend upon at least two factors. The first is the size of the school. Smaller schools cannot afford the cost of installation of a large variety of office machines and/or specialized teaching personnel. Another factor is the needs of the community. It should be determined by placement and employment surveys whether facility in the operation of a variety of office machines is demanded by employers of office workers in the areas served by the school. In the same manner, the objective regarding distributive education should be governed by the employment opportunities in the area and by the opportunities to gain work experience. The objectives of any community school program of vocational business education should be formulated only after a careful study of employment situations and opportunities in offices, stores, and other places of distribution.

Vocational education for business may first be divided roughly into two areas: (1) preparation for office positions such as stenographers, bookkeepers, and general clerical workers; and (2) preparation for retailing (distributive) occupations such as sales persons in retail establishments, typified by department stores and specialized stores, or in service establishments such as restaurants, hotels, theaters, personal services, and business services. Because of the division of occupations given above, the more common courses offered in this area are typewriting, bookkeeping, shorthand, and office practice. Many of the enrollees in typewriting courses, however, are students not planning to enter an office occupation but taking the course for personal use. The majority of leaders in this field feel that the content of a semester course in personal typing is not sufficiently different from that of a course in vocational typing to justify separation of students according to primary objectives. They believe, however, that the primary objective of elementary bookkeeping should be vocational training.[18] Other related-subject course offerings of a general nature that are often made available are business law, economic geography, business English, and business arithmetic. Shorthand is another course which should be offered only for those students who have a well defined objective of qualifying for a stenographic position, and should be placed as near as possible toward the end of the secondary school years. Again, the needs of employers in the community must be considered. An example of one study of employers' activities will illustrate this. Potter made an analysis of the work of general clerical employees covering five types of companies hiring the largest number of general clerical employees. She found that 86.8 percent of the time of beginning employees was devoted exclusively to typewriting and filing. The remaining 13.2 percent was in adding-machine work. From this she concludes: "The core of the general clerical training program in secondary schools should be the development of skills in typewriting, filing, non-specialized clerical work, and simple adding-machine operation." [19] This points out the need for considerable office-practice experience which should be provided concurrently with other business courses. Much of this can be provided by the school in meeting the clerical needs of prospective employers. In view of trends in office occupations, secondary schools could well place greater stress on the teaching of filing, unspecialized office responsibilities, and adding-machine work, and less on bookkeeping. There is a great need for a realistic inventory of clerical positions and competencies called for in the local community as a basis for planning these courses. It is also very important to examine critically the courses which, in many cases, might be listed in a "commercial curriculum" largely because of tradition.

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[18] Carlos Hayden, *op. cit.*, p. 94.

[19] Thelma M. Potter, *An Analysis of the Work of General Clerical Employees*, Teachers College, Columbia University Contributions to Education, No. 903, New York, Teachers College Columbia University, Bureau of Publications, 1944, p. 74.

The provision of instruction for distributive occupations will require a study of local employment opportunities and analysis of jobs to determine competencies required. The most common distributive education subjects offered at the secondary school level have been salesmanship, merchandising, retailing, advertising, and store organization.[20] A Federal bulletin suggests courses in consumer problems, business organization, business arithmetic, and business law.[21] A certain degree of competency could be developed in such courses if they were supplemented by student projects and other student activities. Some schools place salesmanship students, for example, in charge of school activities that involve selling, while others provide model stores or school stores.[22, 23] These activities give students an opportunity to carry learning to the doing stage. The limitations of such provisions, however, should be recognized. They can ordinarily be provided only in the larger schools. Such courses will provide largely for the more general competencies of retail selling. The specific skills required by employers must be learned on the job. For this reason, wherever possible, cooperative, work-experience programs should be developed between employers of retail establishments or other distributive businesses and the schools. Under such programs the students for one or two years would work part time at a distributive job and receive related instruction in school. Such programs will be discussed at greater length in Chapter 17.

Following the lead of the Future and New Farmers of America and the Future and New Homemakers of America, there has been a development of clubs in the secondary schools for students enrolled in courses in business education. The Future Business Leaders of America, in 1950, had 326 chartered chapters in secondary schools, with state chapters in 10 states. The stated purposes are patterned closely after the F.F.A. Membership is open to all students enrolled in business courses. The national organization is under the sponsorship of the United Business Education Association, a department of the N.E.A., and publishes a periodical called the *FBLA Forum*. Local chapters engage in a wide variety of activities such as assisting with the conducting of occupational surveys, assisting in school activities, accounting, publishing a school newspaper, conducting open forums, aiding in job placement, and other school and community service activities.

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[20] Kenneth B. Haas, *Distributive Education*, New York, Gregg Publishing Co., 1949, pp. 48–49.

[21] *Vocational Education in Distributive Occupations*, U.S. Dept. of Health, Education, and Welfare, Voc. Div. Bul. No. 225, Distributive Education Series No. 19, Washington, D.C., U.S. Government Printing Office, 1954.

[22] R. G. Walters and C. A. Nolan, *Principles and Problems of Business Education*, Chicago, South-Western Publishing Co., 1950, p. 134, 138.

[23] Eva F. Tibbetts and Ken. R. Williams, "The Retailing Laboratory Store," *American Vocational Journal*, 26: 16–17, March, 1951.

More recently there has developed the Distributive Education Clubs of America. In 1954 such clubs were being sponsored in 32 states. These clubs have formed state organizations, of which there were 23 in 1951, and a national organization. The DECA promotes group activities among its members of a social and educational nature and endeavors to foster a group consciousness and interest in the retailing business. Among contests sponsored by the organization are state exhibits, merchandise manuals, state newspapers or letters, club scrapbooks, public speaking, essays, and window displays. An organization magazine, *The Distributor*, is published four times a year.

The Secondary School Program in Vocational Industrial Education

The difference between that form of industrial education which is a part of the general education of the individual, usually called industrial arts, and industrial education designed for the purpose of preparing the individual for a career in industry, usually called vocational industrial education, was discussed in some detail in Chapter 7. This section deals with characteristics of vocational industrial programs, only. Industrial arts is treated in the following chapter entitled "Characteristics of the Practical Arts in the Secondary Schools." Vocational industrial education is a term which includes areas which may not be implied in the term itself. It includes, of course, preparation for occupations in industry. It also includes preparation for trades which may or may not be practiced in industry, as such. For this reason the phrase, "trade and industrial education," is frequently used to describe this area. Vocational industrial education also includes preparation for service occupations such as cosmetologists, practical nurses, policemen, firemen, and janitors.

On the secondary level we are concerned primarily with pre-employment training, which is given the individual before he enters the occupation as a paid worker, although many high schools and community colleges operate cooperative programs in which boys and girls are employed part-time as a part of their educational program. In any event, secondary school vocational industrial programs are planned on the assumption that boys and girls enrolled in them have planned a career, even though the plan is still somewhat tentative, and that the program will provide specific preliminary training for the occupations of their choice.

There are two basically different plans of organization for programs of secondary school vocational industrial education. The most common plan is one in which the school provides shops and laboratories equipped so as to simulate an industrial situation and staffed by a teacher who is a skilled worker in that particular occupation. Under this plan the student spends a third or more of his time in the shop or laboratory; the remainder of his school day is spent in subjects directly related to the occupation for which he is preparing and in general education subjects. If the teacher has an adequate background of trade experience and professional preparation, it is recommended that the shop or laboratory experiences and the related instruction be integrated and that an extended shop period be provided to accomplish this enlarged function. If this type of program is operated so as to qualify for financial aid from state and federal funds, it is required that at least half of the school time be given to "practical work on a useful or productive basis." The other plan is one in which, in cooperation with employers, the shops and laboratories in the community are utilized. This plan is most feasible for youth 16 years of age or older, since they are in regular employment on a part-time basis. This plan is also used in business education and is discussed in detail in Chapter 17.

Industrial occupations for which the secondary schools can and do provide training can be classified into three groups: (1) unit-skilled occupations, (2) multi-skilled occupations, and (3) technical occupations.

Unit-skilled occupations are those requiring a high degree of skill in a limited number of operations. Workers can be trained for unit-skilled occupations in a relatively short period. For example, elevator operators, laundry and dry-cleaning operatives, photographic process workers, and truck drivers can be trained in a few days to several weeks. Training for such occupations is generally given on the job by the foreman or some other supervisory person. There are other unit-skilled occupations which require considerably more training—several weeks to six months or more. Examples of such occupations are turret lathe operators, shipyard welders, shoe repairmen, auto service attendants, waiters and waitresses, textile spinners and weavers, meat cutters, barbers, and power sewing-machine operators. For some occupations in this category the training cannot be done in school because of the nature of the tasks performed by the workers. There are others, however, which lend themselves to secondary education. This type of vocational industrial education is particularly well suited for those who will leave school early and need a salable skill. Boys and girls with less scholastic ability can often find success and satisfaction in a program designed to prepare them for an occupation in this category. For some occupations the program could be provided in school shops, while training for other unit-skilled occupations could be provided more effectively on the cooperative work-study plan.

The multi-skilled occupations are those requiring a high degree of skill in a wide range of operations involved in a trade or craft and the technical competence to make judgments in relation to the performance of these operations. Workers in the multi-skilled category are more broadly trained for such occupations as cabinetmakers, lens grinders and polishers, tile setters, plumbers, upholsterers, lithographers, machinists, and silversmiths. Training programs for this category of occupations are from two to six years in length. For those occupations which are apprenticeable the pupil might receive preliminary preparation in the secondary school and complete the training through an apprenticeship program. More attention has been given to the development of programs for occupations of this type than for the unit-skilled or technical occupations.

Technical occupations are those requiring a high degree of scientific and technical knowledge and understanding and generally do not involve the manipulative processes to the same degree as do the skilled trades. Technical workers are often engaged in the performance of duties of an engineering nature under the direction of a degree engineer and in jobs which require no more than one or two years of preparation beyond the completion of the 12th grade. The number of technicians needed in industry is increasing in proportion to the total number of workers, and the secondary schools have not kept pace with this expanding need. Some engineering colleges have developed one- and two-year programs to meet this need, and some community colleges located in industrial communities have recognized this need and established programs to prepare technical workers. Technical occupations for which community schools could provide training include the following: engineering technicians in aeronautics, airconditioning, heating and refrigeration, power and transportation, building construction, chemical manufacture, civil engineering, light and power industry, electronics, instrument and watch making, mechanical and metallurgical technology, food technology, optical technology, photographic technology, and textile technology.

For the most part, these programs are heavily weighted with the physical sciences and mathematics and include practical experiences usually acquired in industry. The term "vocational-technical training" is frequently used to designate a program in this area.[24]

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[24] For further information on this subject, see: *Vocational-Technical Training for Industrial Occupations*, Federal Security Agency, U.S. Office of Education, Vocational Division Bul. No. 228, Washington, D.C., U.S. Government Printing Office, 1944.

The number of industrial occupations for which training is needed is so large and the occupations are so diversified that it may appear to be an overwhelming task for the community schools. If the problem is viewed from a state or national point of view it becomes quite complex. However, if the industrial personnel needs of the local community are studied in cooperation with industrial employers, the needs of any given community (excepting the larger cities) suggest achievable goals for the community high school. Not all of the training can or should be done in the school. Industry could do much of it through on-the-job and other industry-operated programs. Some could best be done through a cooperative plan in which industry and the schools each do a part of the training and still other needs can be served by the school itself.

Some communities in which it is considered impracticable to offer specialized curriculums for each of the occupations for which the community needs trained workers have organized programs on the basis of a cluster or family of occupations. For example, a single shop with a qualified teacher might be used to prepare young men to work as electricians, electric-motor repairmen, and radio and television repairmen. In such a program the problem is to find teachers who have had the variety of experience to be qualified in each of several areas. Secondary schools should be careful not to make claims which cannot be fulfilled. It is a mistake to give the impression that the schools can prepare a person completely for any occupation and especially the skilled trades and crafts. At best, the schools can develop those habits, attitudes, skills, and understandings needed to get initial employment and to provide the foundation on which the subsequent development of the individual as a citizen and a worker can be based. It is possible for the secondary schools to give youth a zest for learning which will carry them on to achieve their vocational goals.

In developing the vocational industrial program in the community high school attention should be given to the preparation of youth for occupations which will be available to them when they have completed the training. Certain hazardous occupations require workers with more maturity; there are also those occupations which require a number of years' experience in a lower level occupation as a stepping-stone. The secondary schools should concentrate on entry occupations and therefore need to have information which distinguishes them from other occupations.

It is not possible to have standardized courses for the preparation of industrial workers, because the content for any occupation must be based upon the competencies required in local industries. Machinists in a community where automobiles are manufactured need a different kind of training from machinists who work in oil-well equipment. Although they are both called "machinists," their work is so different that the same program would not serve both purposes.

Problems in the Provision of Vocational Education in the Secondary School

As educational leaders and others work together in communities to develop effective programs of specific vocational education many problems will be encountered. Some of these are associated with differences in size of the secondary school and in the economy of the community. Some are related to the specific occupations to be dealt with. Others are associated with efforts to bring into actuality the characteristics of true vocational education as outlined in the first part of this chapter. It is important that community leaders recognize these problems in order to be of assistance in moving forward toward the goals which these communities should set for their schools.

The first problem to be mentioned arises from the fact that vocational education in the public secondary schools is a relative newcomer on the scene of educational history and is a "minority area." The common patterns of scheduling academic subjects in schools creates a problem. These subjects are traditionally taught for a semester or a year, and in short periods of forty-five to sixty minutes for five days a week. On the other hand, some vocational classes involving materials, tools, and equipment as well as much practice could not accomplish what they should in such short periods. Furthermore, some specific vocational competencies could be acquired in less than a semester, while others require a period of several years to develop. It will not be an easy matter to build a schedule for a school offering courses for vocations such as agriculture or homemaking involving four or more years of preparation.

Vocational education implies learning by doing; in fact, there is no other known way of developing marketable skills than by involving the learner in a "doing" process. This "doing" takes time. It is not necessarily time over a period of days or weeks or years, but when new operations are being learned an adequate period of practice is absolutely essential. Most courses designed to develop specific occupational competencies, therefore, should have periods of at least an hour in length, some two hours in length, and some as much as three hours. Some may require field trips. There are jobs, which once started, must be completed before adjourning the class or turning over the equipment in shop or laboratory to another class. There is need for large blocks of time in the school schedule for vocational courses.

It has been said repeatedly here that the teacher of a vocational course needs to be in close touch with the working situation. The teacher of agriculture must spend considerable time on the farms, and the teacher of homemaking in the homes. The teacher or coordinator of business or industrial courses must have time to spend in the offices, stores, or shops of the community, working with employers to study their needs and to help them instruct learners on the job or to assist teachers with instructional problems. Therefore, the teacher of vocational subjects needs a flexible time schedule. Time must be provided for some of these contacts during the school day. No teacher or coordinator should be expected to make all such contacts after school hours.

Teachers should have time for and assistance in organizing and using advisory committees or councils. The use of such councils is not an easy matter. Many problems will be encountered, and time for planning should be available.

One of the more challenging problems in the provision of specific vocational education in the secondary schools is that of determining for what occupations to provide training. Most occupational surveys will show a very bewildering diversity of occupations. Included will be those requiring little or no systematic instruction as well as some requiring more than can be given in the secondary school. Certain occupations employ only a small number of persons in any one community and only occasionally will require preparation of a trained replacement. Because of the mobility of our population and the normal migration of persons in search of employment the schools can not limit their objective entirely to meeting the vocational training needs of the local community, but must consider the larger community as well. Another difficulty arises from the trend in business and industry toward division of labor and specialization of function within the organization. The community secondary school should determine what it can do acceptably well, insofar as providing specific vocational instruction is concerned, and should also recognize the things which it cannot do.

A special problem in this regard is faced by the smaller school. This school has a less flexible class schedule because of fewer sections, fewer teachers, and probably a narrower curriculum. The small class of prospective entrants into a given vocation in a large school becomes even smaller in the small school. Problems of room, laboratories, and shops also are acute in the smaller school. Obviously, reorganization of districts to form larger school units of administration where possible would help. There is also the possibility of programs developed cooperatively with other nearby schools.[25] These might involve sharing of facilities and/or sharing of teacher time. It has been estimated by one state director of vocational education that a secondary school needs at least 450 students for a comprehensive program in vocational

[25] See *Service Areas for Vocational Schools,* Washington, D.C., American Vocational Association, 1949.

tion. Many communities will need two or more teachers to take care of all programs. The teacher of vocational agriculture should be employed on a twelve-month basis.

In homemaking education this is even more true. There probably is no community in this country which does not need courses in homemaking education in the secondary school. The full time of the available teachers should be scheduled, including an ample amount of flexible time for home and community contacts. A recent study by O'Donnell in Michigan showed that parents desired more contacts with the homemaking teachers than had been provided for the purpose of cooperative planning of the local program of homemaking education.[27] To meet these needs as seen by parents, teachers of homemaking should be, and in many states are, employed on a twelve-month basis. The schedule of teachers of vocational industrial education and of vocational business education should be similar in nature. The need for time to contact employers and to study employment situations as well as to aid employers in setting up on-the-job training programs should be adequately provided for. At times it might be necessary to free a part or all of the time of one or more vocational teachers to work with a citizens' group conducting a survey of occupational training needs or engaging in related planning activities.

Since a relatively small proportion of community schools now or in the past have had complete programs—i.e., programs in all four of the possible fields—one of the first organization projects in any particular secondary school may be that of determining the need for programs of vocational education in fields not yet provided for. This would require the time of one or more members of the staff of the school as well as of citizens in the community. It will be desirable in many school systems to designate one person as assistant superintendent or local director of vocational education and practical arts. This person could assist the principal in the development of a comprehensive vocational program. The functions and responsibilities of such a local administrator are dealt with at greater length in Chapter 23.

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[27] Beatrice O'Donnell, *Home and School Cooperation in Homemaking Education in Michigan*, East Lansing, Michigan, School of Education, Michigan State College, 1952.

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Chapter 16

CHARACTERISTICS OF THE PRACTICAL ARTS IN THE SECONDARY SCHOOL

The practical arts are defined in Chapter 6 as those phases of general education dealing with the organization, materials, processes, and products of agriculture, business, industry, and the home and with the contribution of those engaged in these areas of activity. The emphasis in the practical arts is placed on experiences with tools and materials as they relate to the development of the individual and the practical aspects of living in our society. The fact that the practical arts are phases of general education bears repetition. They meet all the criteria of general education in that they are intended for everyone, they are concerned with the total personality, and they are concerned with the individual's non-specialized activities. Since the practical arts are a part of general education, they should not be confused with specialized education for vocational purposes.

While the practical arts involve tools and materials used in industry, agriculture, business, and the home, the secondary schools have given greater emphasis to industrial arts and homemaking than to the other fields.

More than an Activity Program

Since the practical arts deal with the tools and materials of our culture, it is sometimes mistakenly assumed that they are concerned only with the manipulative skills. Of course, all secondary school youth should have the opportunity to develop skill in adapting materials to man's uses; such skills involve the use of tools which are simply an aid to man in his efforts to improve his material environment. But in this process he also acquires considerable knowledge about materials and processes, he grows in appreciation of the work men do and its significance to society, he learns to identify and solve problems growing out of his physical environment both as an individual and as a member of a group, he is provided opportunity to develop creative abilities, and he learns to work and share as a member of a group and to evaluate work and its products. The practical arts are therefore much more than merely the teaching of manipulative processes involved in man's relationships with the materials of his environment.

A Means of Exploring the World in Which We Live

Education should help youth become more familiar with the various elements of their environment, including the material elements, so that they will be better able to deal with practical life situations. The world is full of a variety of things which people need to know about and understand if they are to live happily with them and make the maximum use of them. Traditionally, schools have been concerned primarily with subject matter which was presented through symbols, usually in the form of words. The modern secondary school makes no less use of words to convey ideas or to interpret concepts, but in it words and other symbols are supplemented by the use of non-verbal materials. Plants and animals are brought into the biology laboratory; mechanical and electrical devices are built and repaired in the physics class; practical projects emphasizing the utilitarian as well as the aesthetic values are constructed in the art class; field trips are taken by social studies classes to local public utilities and to governmental and other community agencies. Through activities such as these youth are able to explore the world in which they live through media other than words. These first-hand experiences with real life materials and processes are supplemented by the use of reference books and discussions.

Practical arts activities may be used in connection with the conventional subjects, "common learnings" courses, or they may be introduced through clubs or some form of "extra-curricular" program. Frequently they are taught as special subjects in the curriculum. Most secondary schools employ practical arts activities in all forms in a variety of situations resulting in an enriched curriculum in which the child who has less verbal ability is not penalized as severely as he is in the more traditional school.

The Development of Skills, Abilities, and Understandings Which Will Enrich All Aspects of Living

Modern methods of production on the farm and in the factory as well as technological developments have given us many material advantages which, if properly used and understood, can serve to enrich our lives. Secondary education should give youth an understanding of the things produced by both nature and man and the ability to use them wisely. The automobile is anathema only in the hands of an unskilled operator or one who does not fully appreciate this modern mechanism. The production of food and feed can be more fully appreciated and, therefore, farm products are more appropriately used by one who has had some experience in agricultural activities, either on the farm or in school.

The practical arts should provide for every boy and girl in our secondary schools the opportunity to acquire skills in the use of tools and materials necessary to live most effectively in our culture. Through the practical arts youth should be encouraged to explore and discover their special aptitudes and to develop their individual abilities. They should also be helped to acquire insights and understandings about the material elements of the world about us. An effective series of experiences in the practical arts will aid youth in the development of skills, abilities, and understandings which will enrich living in our democratic society.

The Development of Skills, Abilities, and Understandings Which May Have Value in Relation to Vocational Goals

There is little question among leading educators that the practical arts are designed to achieve the purposes of general education. The practical arts are *not* specialized education designed to prepare youth occupationally. On the other hand, it should be pointed out that all experiences in general education may have meaning and value in relation to the individual's vocational goal. For example, the boy or girl who studies English, public speaking, and debating as a part of a general education program may find these studies extremely valuable in relation to a future career in the legal profession. For a fuller treatment of the contribution of general education to occupational preparation see Chapter 8.

Jaffe and Stewart, in discussing the factors affecting shifts in occupations, attach considerable significance to the fact that in our culture we develop in youth of each succeeding generation "an ever-increasing heritage of basic knowledge useful in a wide variety of occupations." This factor, combined with the increasing division of labor, is one of the major causes of the shifting occupational pattern. Jaffe and Stewart illustrate this idea as follows:

> In order to visualize this more clearly, let us compare two theoretical youngsters; one of today and one of seventy-five or one hundred years ago, before the development of the present day type of mass-production operations. The United States youngster a century ago was probably raised on a farm in which case he acquired considerable knowledge of agriculture. He was competent to become a farmer and little else. If he did not enter agriculture, he spent several years as an apprentice and learned some craft at which he then spent his entire working life. Machines were more or less of a novelty to him, and he tended to rely upon his hands and simple tools rather than on an inanimate machine to create the goods or services from which he earned his living.
>
> The youth of today, in contrast, whether raised on a farm or in a city grows up in an atmosphere of machines and literacy. Before ever applying for his first job he has already acquired a number of skills usable in a wide variety of jobs. These are skills of a type hardly considered as especially of a vocational nature but nevertheless quite useful in earning

> a living. Thus the majority of the youth today graduate from high school which in itself qualifies them for a large variety of clerical jobs. In addition most have learned to drive an automobile, another skill that is useful in many jobs. Finally, having spent so many years with machines, they have acquired a certain general mechanical skill which in itself enables them to qualify for many types of jobs.
>
> Given these generalized types of skills, modern methods of mass production based on a highly developed division of labor can then utilize efficiently the same individual for many different jobs. Comparatively little on-the-job training is required since the job is so organized as to utilize the knowledge the person acquired simply by being raised in the culture.[1]

Through the practical arts boys and girls may be introduced to and develop some acquaintance with the hand tools and machines used in our society to produce the materials needed to maintain our standard of living; they may also develop a degree of skill in the use of these modern aids to production. In the process of learning skills they work on materials and so are motivated to learn about the distinguishing characteristics and appropriate uses of each. This development of general mechanical abilities and insights regarding the production and use of materials of our environment is the function of practical arts. These skills, abilities, and understandings can have tremendous significance in relation to the vocational future of the individual.

Mental Health and Emotional Balance

The practical arts can provide for many secondary school youth the kind of experiences needed to acquire and maintain a well-adjusted personality in which the qualities of body, mind, and character are developed as an integrated whole. Someone once said that if you want to make a "good man" or a "good woman" and you are allowed to give him only one thing, give him a degree of skill which will make it possible for him to do something so well that he would be willing to pay for the privilege of doing it. Such competence is a powerful factor in the integration of any personality into a functioning whole.

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[1] A. J. Jaffe and Charles D. Stewart, *Manpower Resources and Utilization*, New York, John Wiley and Sons, Inc., 1951, pp. 197 and 198.

There is considerable evidence to show that the cultivation of the activity instinct has a positive effect in the development of a more stable personality. Davis declares that:

> More attention should be paid to the importance of the activity instinct. Work is more than an activity; it is an emotional liberation. Thwarting this fundamental instinct may give rise to depression, followed by apathy and sometimes by psychoneuroses or to restlessness and irritability followed by rebellion. . . . One of the favorable factors in the lowered incidence of neuroses in England has been increasing vocational training. Gillespie in England, Duton, Frantz and others in this country have shown the value of crafts in which technical skill is developed as a sedative resulting in a personality less affected by disturbing influences.[2]

Many secondary school boys and girls can find in one or several of the practical arts an absorbing activity which will provide pivotal value and serve as an integrating force. For example, the 9th grade boy who has learned the Continental Morse Code in connection with his boy scout achievements may become intensely interested in radio, may qualify for a "ham" operator's license, and may ultimately learn to repair and build radio and television equipment. His competence in this field would produce personal satisfactions which would have a salutary effect on the whole personality of the boy. At the same time the field in which he is so intensely interested would provide a springboard for the study of other subjects.

A Means of Vitalizing Instruction in Other Subjects

The practical arts also serve as a source of motivation for learning in related fields. To continue the example given above, the boy who is intensely interested in radio and has had an opportunity through the practical arts to develop this interest will discover that he needs an understanding of some principles of physics, competence in certain mathematical operations, or the ability to express himself more effectively. If the teachers of science, mathematics, and English are aware of this absorbing interest in radio and are sufficiently flexible in planning learning experiences, the instruction in these subjects can be related to the boy's central interest and thereby given real meaning and purpose. Similar examples might be cited in the fields of agriculture, homemaking, and business; all of the practical arts have tremendous potential for sparking and kindling latent interests in boys and girls which can lead them from more concrete learnings about tools, materials, processes, and products to related subject matter of a more abstract nature.

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[2] From *Principles and Practices of Rehabilitation*, by John E. Davis. Copyright 1946, A. S. Barnes and Company, New York, pp. 9 and 12.

Descriptions of Practical Arts Programs

Practical arts activities are frequently made a part of the more traditional subjects of the secondary school curriculum; for example, the class in literature may produce a play, construct the scenery and props, reproduce copies of the program, and prepare publicity materials. Practical arts activities are sometimes organized as a part of the so-called extra-curricular program; for example, the chefs' club in which boys and girls learn to purchase, prepare, and serve food, or the airplane model club, the photography club, radio club, horticulture club, and many others involving the "doing" kind of experiences with tools and materials. These are effective means of employing the practical arts but should not be considered as substitutes for offerings which are a part of the regular curriculum. Most of the practical arts activities carried on in any school will probably be done in courses organized especially for this purpose.

The practical arts play an exceedingly important role in the curriculum of the junior high school or grades 7 through 9. The reasons are (1) they provide physical activity which is so essential in the development of boys and girls of this age, (2) they may help students who are not especially interested in the more traditional subjects discover latent interests and talents, (3) they can frequently be related to out-of-school activities in the home, on the farm, in the boy scout troop, in the 4H club or other work and play activities in which children of this age are normally engaged, (4) they provide a means of expression through construction or production activities dealing with tangible three-dimensional materials, (5) they provide the means of teaching practical things which every boy and girl should know and be able to do, and finally (6) the practical arts make it possible for youth to explore the material things of the world in which they live, which will help them better to understand and cope with their environment and possibly assist them in planning their careers. Practical arts programs can be described best if we consider each of the four major fields separately.

General Agricultural Education

Hamlin [3] claims that the possibilities of agriculture as a practical arts subject have been neglected. He outlines a program of agricultural arts for the junior high school in which all students would take a year of agriculture. This course would include gardening, poultry raising, soil conservation, growing small fruits and tree fruits, landscaping, purchasing and consuming agricultural products, and opportunities in agricultural occupations and in country life. Hamlin suggests two additional years of elective agriculture for 8th and 9th grade students. These two years of work might include units on such subjects as securing and using agricultural information; raising hogs, sheep, corn; rope work; elementary farm carpentry; identification and control of weeds, insects, and plant diseases; livestock selection; elementary farm record keeping. Instruction should be practical and should be limited largely to the things boys and girls can do something about immediately. Hamlin states that,

> As rural education is reorganized, junior high schools will become more common. With more farm boys and girls in junior high schools it will

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[3] Herbert M. Hamlin, *Agricultural Education in Community Schools*, Danville, Illinois, The Interstate Printers and Publishers, 1949, p. 218.

seem as natural to teach agriculture in these schools as it is to teach industrial arts in city junior high schools.[4]

Agricultural arts, or general agriculture, as it is most frequently designated, has not been neglected to quite the same extent on the senior high school level. Courses with the title of general agriculture, however, are sometimes taught as lecture courses with little or no opportunity for activity and therefore are not to be thought of as practical arts subjects. A study of enrollments and offerings in practical arts in the state of Missouri by Ekstrom [5] shows that of the 217 high schools with enrollments under 100 without departments of vocational agriculture, 82 or 27.8 percent offered general agriculture in 1952–53.

Whatever units are included in a senior high school course in general agriculture, they should be practical and related to the out-of-school problems with which the students are faced. The program might make effective use of projects especially in such areas as gardening, landscaping, fruit growing, poultry raising, and in producing certain farm crops and raising livestock on a small scale. Some schools operate a school farm partly for this purpose. Care of the school grounds can sometimes be made a group or class project. Field trips, if properly used, can be an effective way of giving youth an appreciation and understanding of agriculture. Trips to farmers' cooperatives, to state colleges of agriculture, to creameries, canning factories, and industries manufacturing farm equipment as well as to neighborhood farms should be extremely valuable. Actual work experience on farms and in agricultural industries and businesses on a part-time basis or during summer vacations might be planned as a part of this program. Farm workers and managers as well as professional specialists in agriculture should be used as resource people both in and outside the classroom. Most of the successful methods used in vocational agriculture can appropriately be used in general agriculture. The fact that the purpose is different suggests a different emphasis in the selection of content; since boys and girls in general agriculture are not necessarily preparing to become farmers or farmers' wives, the content would be general enough so that it might be of value to all and, for the most part, selected on the basis of the problems and needs of the learners rather than the requirements of agriculture as an occupation. Individual instruction through supervised practice on the farm, which is the basis for content and activities of the vocational agriculture program, would not necessarily be a part of the general agricultural program.

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[4] *Ibid.*, p. 220.

[5] G. F. Ekstrom, "Enrollments and Offerings in Practical Arts," *Missouri Schools*, Vol. XIX, No. 6, February, 1954, p. 6.

General Business Education

The need for general business education, as well as a discussion of its scope and purpose, is found in Chapter 6. General business education includes those competencies needed by everyone which will enable the individual to handle successfully those business problems and activities of a personal and family nature. It is also intended to result in a degree of economic literacy which will enable the individual to understand and participate in the business life of the community, the nation, and the world as these affect him personally. It is our purpose at this point to describe a general business program appropriate for the secondary school level.

In the junior high school it is recommended that all students take one course in general business. Such a course has been available in many junior high schools, but frequently it has not been designed for or taken by all students; it has been considered primarily as an exploratory experience for those who are considering business as a possible career. Over a decade ago Strong[6] did a study of 45 junior high schools in which he found that 39 of the schools offered junior business training (a course title frequently used on the junior high school level for general business training), 21 offered typewriting, 16 business arithmetic, 4 office practice, 3 bookkeeping, and 2 shorthand.

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[6] E. P. Strong, *The Organization, Administration, and Supervision of Business Education*, New York, The Gregg Publishing Company, 1944, pp. 127–28.

Most business education courses offered in our senior high schools (until recently referred to as "commercial courses") are taught with the emphasis on the vocational objective. Anyone who wishes to study typing, shorthand or any other business subject for personal use is usually admitted to these courses. A sharper distinction between general business competencies which every boy or girl should have and those general and specialized business competencies which should be a part of the preparation of a boy or girl who is planning a career in business should be made if business education is to be maximally effective for both purposes. Freeman [7] made a study of the business activities common to most normal individuals and then translated these activities into competencies needed by everyone in order to conduct their activities of a business nature intelligently and successfully; these are stated in terms of experiences which should be provided for all youth on the secondary level. He suggests that 63 of these desirable outcomes or experiences be organized in a course to be taken by all students in the 9th and 10th grade, and that the advanced outcomes be organized in another course to be given to all students during the 11th or 12th grade. Of the 131 items recommended by Freeman as experiences which every boy and girl should have as a part of his secondary education, relatively few involve "doing." The phrases "to understand" and "to appreciate" are used frequently. It would seem possible, however, to develop general business courses made up largely of units dealing with the "how" as well as the "why." Since, in the practical arts, the learnings come though the pupils' experiences with tools, materials, and processes, it might be inappropriate to label a course or courses made up of units suggested by Freeman's list as practical arts. Business educators avoid the use of the term practical arts, and the reason may be that intrinsically there are less of the "doing" kinds of things involved in business than there are in agriculture, homemaking, or industrial activities.

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[7] M. Herbert Freeman, *Basic Business Education For Everyday Living*, Chicago, South-Western Publishing Co., 1951, pp. 14–22.

Price and Musselman [8] in their book *General Business for Everyday Living,* written to meet the needs of 9th and 10th grade students, state in the preface of the book the following five purposes:

> To develop a wholesome and accurate concept of business as it affects our daily lives.
>
> To develop a fundamental knowledge of business procedures as they affect the consumer, such as handling money, budgeting income, buying goods and services, buying life insurance, and using communications and travel services.
>
> To explore the world of business as a means of establishing a foundation for selecting a career.
>
> To enhance the basic skills needed by both the student and the worker —vocabulary, penmanship, arithmetic.
>
> To provide guidance to the student in evaluating opportunities in business.

How experiences in general business should be organized so as to serve the interests and needs of secondary school youth is a question to which there is no clear answer. There is no doubt, however, that boys and girls need skills and understandings which will enable them to (1) make a wise vocational choice and (2) deal more effectively with the many personal business problems with which they are confronted. Some schools attempt to meet both of these needs at the same time and frequently in the same course. It is unlikely that such a dual purpose course is as effective as it should be; from a vocational guidance point of view boys and girls should have a variety of exploratory experiences early in the secondary school program so that they might specialize in a field of special interest during the remaining years in high school. On the other hand, the personal problems requiring a knowledge of business, such as money management, insurance, buying, transportation, and record keeping are not as real in the lives of children in grades seven through nine as they are in older youth. This suggests the need for experiences early in the secondary school program designed to acquaint boys and girls with the work-a-day world of business and the opportunities for building a career in business. It also suggests the need for a series of experiences (which may take the form of a course) which should be available to all boys and girls as a part of their equipment for effective living and which should probably be offered at the time they are beginning to face many of life's business situations; for most youth this would be near the end of their high school education.

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[8] By permission from *General Business for Everyday Living* by Roy G. Price and Vernon Musselman, Gregg Publishing Division. Copyright 1954, The McGraw-Hill Book Co., p. v.

Boys and girls can be given practical business experiences by organizing a class or club into a miniature business organization for the purpose of producing and/or marketing some product or service. They might sell stocks, have a board of directors, employ workers from among their own group to perform both management and production or distribution functions, declare dividends, and experience the problems found in many other phases of the operation of a modern business. Through such a project high school boys and girls can have practical experiences in dealing with the problems of modern economics in general and our free enterprise system in particular. Junior Achievement Clubs have been organized in many communities by business and industrial leaders in a manner similar to that found in some schools and for essentially the same purpose.

General Homemaking Education

Concepts developed in early childhood are enlarged and refined as the child grows and matures; therefore, experiences in homemaking which the child may have had in elementary school are built upon through a program of homemaking on the junior and senior high school levels. These in turn provide a foundation for later homemaking experiences. On the elementary grade level as well as in the lower grades of the secondary school, the child's experiences in homemaking are clearly in the area of general education. As an individual progresses through secondary school and into adulthood, such experiences are more likely to fill a vocational purpose in the mind of the learner. For some youth, especially girls, homemaking activities on the secondary level may have vocational significance even though the experiences are offered primarily as a part of general education.

On the elementary level the instruction in home and family living is generally integrated with other subjects. On the secondary school level instruction in homemaking and family living is usually organized in units which may be integrated with one of the traditional subjects, be incorporated in an experience-centered "common learnings" program, or a series of such units might be combined to form a course in homemaking. Teachers can obtain resource units on a great variety of homemaking subjects including child care, clothing, personal grooming, food selection and preparation, boy-girl relations, housing, home furnishings, family relationships, marriage, personal and family finances, personality development, and healthful living. These can be combined in an endless variety of patterns and provided on one or several grade levels.

In one state it is recommended that a program of homemaking education include experiences for all boys and girls in the 7th and 8th grades in the following areas:

Developing our personality
    Being a good family member
    Getting along in school
    Having fun with family and friends
    Making and keeping friends
    Managing my time and money
    Sharing in family celebrations and holidays
    Understanding myself and others

Helping to beautify and care for the home
    Making inexpensive accessories
    Sharing home responsibilities
    Sharing in the care of the home

Helping to keep our family healthy
    Avoiding accidents
    Helping during illness
    Practicing good health rules

- Improving the way we look and dress
    - Caring for our clothes
    - Developing a good grooming schedule
    - Helping in the selection and buying of clothing
    - Learning to dress attractively
    - Making simple and useful garments

- Sharing in caring for young children
    - Helping children to play happily
    - Helping to care for brothers and sisters
    - Keeping little folks safe from harm
    - Pointers on baby sitting

- Sharing in family meals
    - Entertaining friends at school and home
    - Helping to prepare meals
    - Helping to shop for foods
    - Learning to eat healthful foods
    - Practicing habits of cleanliness and safety in the kitchen
    - Setting the table attractively
    - Using socially acceptable table manners[9]

In the same state (Michigan) it is further recommended that these experiences be followed by a basic two-year course in homemaking which, in this instance, is considered vocational because this portion of the program meets the standards for special financial aid from vocational education funds. In the opinion of the authors, the basis for determining whether any program is general education or vocational education is the *purpose* for which the instruction is being provided. The fact that the program for the 9th grade outlined below is intended for boys as well as girls would suggest that it *is* general education. Furthermore, since the content is similar in nature to that recommended for the homemaking program for all 7th and 8th grade boys and girls (which, admittedly, is general education), the idea that this, too, is general education seems to be reinforced. Furthermore, the purposes and content seem to meet all of the criteria given in Chapters 6 and 8 for general education. But whether one considers this particular program general education (and, therefore, appropriately classified as practical arts education) or vocational education is not as important as the fact that it is desirable for youth to have experiences of the kind included in the suggested outline.

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[9] *Program Planning Suggestions for Homemaking Education*, Circular No. 3, Lansing, Michigan, Department of Public Instruction, 1954, p. 5.

Homemaking I—Pupils enrolled are usually in the 9th grade and are concerned with their personal problems and those of their own age group. Emphasis is centered about the girls and boys enrolled through planning units such as:

- Arranging and furnishing a room
    - Making and keeping the homemaking department attractive
    - Selecting, buying, making, and caring for home accessories

- Developing personality and understanding self
    - Developing social acceptability or teen-age manners
    - Good grooming and appropriate dress
    - Managing personal money
    - Understanding self, family, and friends

- Maintaining good health practices
    - First aid
    - Personal health habits
    - Safety in home and school

- Providing suitable wardrobe
    - Assembling attractive outfits for teen-agers
    - Planning and making simple garments
    - Selecting, buying and caring for clothing and accessories
    - Upkeep and repair of garments

- Sharing holiday occasions and family celebrations
    - Gift foods
    - Family fun for birthdays and holidays
    - Special holiday parties and projects with FHA or youth groups
    - Worthwhile crafts for gifts

- Sharing home responsibilities
    - Helping to care for own room or other rooms of the house
    - Helping to care for the lawn and garden
    - Keeping an attractive and well-managed home
    - Making the kitchen attractive, convenient and safe

Sharing in providing simple meals for the healthy family
  Adequate meals for a high school girl
  Entertaining friends
  Freezing and preserving foods for family use
  Sharing in planning, selecting, preparing, and serving nutritious meals for the family

Understanding and sharing in caring for children
  Making toys that teach
  Understanding and caring for younger brothers and sisters
  Understanding some needs of children through observation

Homemaking II is recommended for the 10th grade with units of instruction similar to those in Homemaking I but with the emphasis on the individual as a part of the family group. A series of experiences are recommended for older youth in grades eleven and twelve including two advance homemaking courses (Homemaking III and IV) in which there is provided the opportunity for study of community living as well as the personal and family concerns of girls as young adults, a course in personal and family living for girls and/or boys, and a variety of other offerings entitled "extended experiences."

The major areas of instruction recommended for the course in Personal and Family living are of particular interest here since it appears as though a general education need could be met through such experiences. The suggested areas are: building for happy and successful home and family life, housing problems of the family, learning to live happily with others, looking to the future, making the most of one's self as a young adult, participating in community life, and understanding children in the family.

The Home Economics Education Service of the United States Office of Education made a study[10] of homemaking and family living courses offered in 39 communities across the United States for boys and girls in senior high schools. It was found that most of the 39 schools offered the course for 12th-grade boys and girls, although some admitted 11th-grade students. Since the course in each school was developed to meet local needs and interests of pupils, there was wide variation in the emphasis given, but the units of instruction and activities fell into the following eleven categories:

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[10] *Boys and Girls Study Homemaking and Family Living*, Vocational Division Bulletin No. 245, Home Economics Education Series No. 27, U.S. Office of Education, Department of Health, Education and Welfare, Washington, D.C. (undated), pp. 8–9.

Boy-girl relations
Clothing and personal grooming
Everyday food problems of the teen-ager
Housing problems of concern to high-school boys and girls
Learning to understand children
Living together in the family
Looking toward marriage
Personal and family finances
Personality development
Healthful living
Looking ahead to a vocation

In some schools the activities or units listed above were used by the class as a whole, in some schools they were used by small groups, and frequently these units were used by individual students.

Any school desiring to offer such a course should develop it in terms of the local conditions, basing the course on the backgrounds, problems, and needs of the students. Students and teachers should plan together what problems to discuss and solve.

Industrial Arts Education

Industrial arts is centered around significant aspects of the manufacturing and construction industries and their effect on daily living. Secondary school youth learn about materials through actual experiences in planning, producing, servicing, and repairing various types of consumer goods. They learn facts, principles, and procedures about tools, materials, processes, mechanics, and design. They learn about woods, metals, plastics, leather, ceramics, textiles, paper, and other materials of industry. They learn about electricity, radio, television, motors, and a host of other items of importance, interest, and concern to all people at home, on the farm, at work, and in recreation.

An attempt should be made in developing a secondary school industrial arts program to include as many activities as practicable so as to make the offerings as representative of modern industry as possible within practical limits. The areas generally recommended are woods, metals, graphic arts, electricity and radio, plastics, transportation and power, leather work, and ceramics, with drawing and planning included in all of them as needed. These areas should not be considered as separate subjects but rather as areas of experience and as segments of a total industrial arts program. These experiences can be organized in several different ways. One of the best types of organization, especially for the lower grades in the secondary school, is the general shop. There are two types of general shops—the comprehensive general and the limited general. The comprehensive general shop has equipment and facilities for activities in two or more industrial areas, such as woods, metals, electricity, graphic arts, and ceramics. In the limited general shop the equipment and activities are restricted to a single basic material such as metal or woods; general metal, general wood, and general electricity shops are in this category. On the upper level of the secondary school the unit type shop is frequently used; here the equipment and activity is limited to one specific industrial occupation, such as cabinetmaking, welding, machine shop practice, auto mechanics, or patternmaking. In senior high schools, especially those in which the same shops are to be used to provide instruction for vocational purposes, the unit type of shop is frequently used, although it should be pointed out that the general shop has a place in the upper grades of the secondary school and seems to be growing in favor on all levels of education. For the smaller school with only two or three industrial arts shops or laboratories and for junior high schools no matter how large, the limited general shop would seem most appropriate. In a very small school with just one industrial arts teacher the comprehensive general shop would probably be best suited to meet the needs of the children in that school. There is, however, a limit to how "comprehensive" an industrial arts program can be and still provide effective instruction; the versatility of the instructor is the limiting factor.

A definition of and a list of objectives for industrial arts are given on pages 95 and 96. Since the content for industrial arts is derived from the world of work, we have a wide range of industrial activities from which to select those to be included. The purposes and objectives of industrial arts can be achieved through any single area of activity or any combination of several areas. A more enriched program, however, is likely to result from a greater variety of activities. The question usually arises as to the number of activities which should be included in a program, and what they should be. Limitations such as the size of the school, number of industrial arts teachers, qualifications of the teachers, available space, and finances must be considered. To teach more than four or five activities in a comprehensive general shop requires a versatile teacher of unusual ability. The type of organization and the kinds of activities included in the industrial arts program in any community school should bear some relationship to the industrial nature of the community, the occupations of people living in the community, and the avocational interests of youth and adults in the community; the size of the school, the organizational pattern of the school, and the experiences children have had in earlier grades are other factors to be considered in planning a community industrial arts program.

A common pattern of industrial arts courses on the junior high school level provides exploratory experiences in a variety of activities, such as drawing, woodwork, electricity, graphic arts, and metalwork, as a requirement during the 7th and 8th grades; in the 9th grade students may then select any of these activities for an additional semester or year of work in industrial arts. Where industrial arts is provided in a comprehensive general shop, the opportunity exists for a more flexible arrangement as to the variety and sequence of activities and the amount of time devoted to each.

Senior high schools provide a period of advancement toward a chosen goal. While industrial arts on this level is still general education, many educators believe that attention should be given to the vocational values inherent in this work. Some go so far as to place the major emphasis on the vocational outcomes. In the opinion of the authors industrial arts is general education no matter on what educational level it is provided—elementary school, junior high school, senior high school, community college, college or university—and the general education values should be paramount. Industrial arts can and does contribute to the vocational competency of the individual but so do nearly all other general education subjects in the curriculum. Boys and girls of high school age are interested in and need experiences considerably more complex than those encountered previously. They want to delve into areas of interest with considerable concentration. Opportunities should be provided youth to explore their special interests to the limit of the school resources. Many of these interests are avocational as well as vocational. For those who did not have the opportunity to take industrial arts in the junior high school, comparable experiences should be provided but adapted to the needs and capacities of the more mature individual.

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Chapter 17

COOPERATION OF SCHOOL AND COMMUNITY IN VOCATIONAL EDUCATION AND PRACTICAL ARTS

Only the community school can foster the cooperation between school and community that is essential to any effective program of vocational education. The cooperators are the school, the parents, the employers, and the students employed on a part-time basis. The willingness of industry to aid in a cooperative effort aimed at developing occupational competency is well illustrated in the following statement by the National Association of Manufacturers:

> The responsibility of Industry for more active participation in the preparation of young people who enter industrial employment . . . has increased each year. A complex industrial society, a multiplicity of jobs, the increasingly urgent need for intelligent citizenship, leave no alternative. Industry is a natural co-partner in the education of tomorrow's full-time adult workers. The days when schools were self-contained within their institutional walls are past. Those walls are being pushed out to encompass the entire community. Industrial and business establishments are becoming the daily laboratories and workshops of both secondary schools and colleges in the all-important task of training youth, while they are still in school, for jobs of their own choosing.[1]

If the resources of the community are to be used for educational purposes there must be a willingness to share them on the part of persons, organizations, and institutions that have them. Parents, the employers, and the school are jointly responsible for determining the needs for vocational training and for setting up the objectives of appropriate programs.

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[1] National Association of Manufacturers, *This We Believe About Education*, New York, The Association, 1954, p. 19.

Ways in which this might be done have been pointed out in previous chapters. Of these, one which has been quite successful and increasingly important is the organizing of programs of work experience for improvement of general education and for provision of specific job training for students in secondary schools. Work experience is defined in a recent report by a committee making a statewide study as "A realistic laboratory type of experience, cooperatively planned and school-directed, involving the production of goods or services in agriculture, home, industry, business, school, or community."[2] Such work does *not* include academic exercises or pseudo-jobs. It would not be limited to repetitive activities, whose sole purpose was to provide practice in an operation or skill, although in some cases the student's goal might be the acquisition of a specific skill. Neither does it include class or school-sponsored activities which have learning as a sole objective and which do not provide goods or services for people. Thus, a field trip, though desirable, is not work experience.

Work experiences may be of two types: (1) Experiences which will be equally valuable to all student participants, regardless of their vocational interests, and which are not designed to develop competence in a specific occupation or family of occupations; and (2) experiences gained by students who, having made a tentative occupational choice, participate largely or wholly in the activities or work of one occupation or occupational family, with the intention of acquiring sufficient competence to become gainfully employed in it upon graduating or leaving school. As has been pointed out in previous chapters, few schools have the facilities and working conditions necessary to develop in students specific abilities needed in all occupations. Nor would it be economically wise or feasible to attempt to provide them. If they exist in the community they can be used for educational purposes through cooperative effort. It is not desirable nor possible to draw a sharp line of distinction between these two types of work experience. Some students employed part-time for the general educational value of the experience might later be employed in the same or similar job. If they are, however, they will often need additional experience and/or training. Likewise, all students engaged in selected work experience with intentions of developing marketable skills probably would also develop new interests, habits of work, attitudes, and understandings which could be of value in many occupations, and which will help them to become better adjusted. The discussion which follows will, therefore, deal first with some general aspects of work experience programs and with ways of providing them for general values, after which the characteristics of cooperative training programs for development of specific job skills will be treated.

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[2] Michigan Committee on Education for Occupational Competence, *Let's Look at Work Experience Programs in Michigan High Schools*, Lansing, Michigan, Department of Public Instruction, 1953, p. 4.

Programs of Work Experience

Prominent leaders in education and business, from Pestallozzi to present day leaders, have for many years recognized the educational values of work. They realize the effect of giving children twelve years of schooling, abruptly changed to a period of all work and no school. It is the isolation of students from work activities which needs to be corrected if they are to become effective workers. Youth learn to work by working. Following are some of the educational values which frequently are held to be the outcomes of well organized programs of work experience:

1. Students will acquire socially and vocationally desirable habits of work which are essential to success in any occupation.
2. Desirable attitudes will be developed in students toward work and toward their employer and fellow workers that will contribute to job satisfaction and satisfactory social adjustment.
3. Students will learn how to adjust their activities to the needs and activities of others.
4. Dropping out of school will usually be delayed or prevented because

of renewed interest in school resulting from success in work and study of materials relating to the job.

5. Students will earn money, and will learn how to save and invest it. This will also help to make it possible for them to remain in school.

6. Work experience will help the student to find the occupation most suited to his interests and capacities.

7. It will make it easier for the student to get employment in a satisfactory job following graduation or leaving school.

8. Teachers will be kept more closely in touch with the situations of workers in the community, and thus be in a position to relate their instruction to them and to the out-of-school activities of their students.

9. Some students will gain needed self respect and self confidence through achievement.

10. In the case of vocationally-oriented students working at jobs, where they can and want to do so they will acquire specific skills needed in the occupation.

11. Desirable traits of character may be developed.

From the standpoint of the community and the school there are some additional values that should be generally recognized. If care is taken in matching youth and jobs a work-experience program will often provide the employer with a beginning worker of a more satisfactory type than would otherwise be the case. Another result may be the subsequent permanent employment of students who, having acquired experience, and in certain cases specific skills, will be more efficient and satisfactory workers. The employers will have a greater confidence in the ability of the school to prepare youth for employment. The relations between the schools and business, industry, agriculture, and the home will be improved. It is quite probable that through cooperative effort the hours and conditions of students who work part-time while enrolled in school could be improved.

These values should be kept in mind by an advisory council and by persons charged with responsibility for organizing, administering, and supervising work-experience programs. They should constitute the basis from which the objectives of a program are derived. These values and the objectives which they indirectly suggest should be considered by students, teachers, employers, and others involved when evaluating a program. It is pertinent at this point to analyze the general reactions of students, employers, and school people to part-time work programs for students.

In a study reported in 1946 by the National Child Labor Committee, 1,999 students who had participated in work-experience programs in four cities were asked whether they would advise other students to participate in the program. Eighty percent replied that they would. On the whole, the opinion of the high-school principals was favorable. Of 304 parents questioned, 97.4 percent indicated they felt that the arrangement of part-time school and part-time work was satisfactory. The representatives of organized labor were interested in the possibilities of the programs as educational enterprises. Of 229 employers questioned, 159 believed the program worth-while for all students and 47 believed it worth-while for some.[3] Contacts of the authors with employers in industry disclose a preference on the part of many of them for youth who have grown up and worked on a farm. It is quite likely that the work habits and attitudes acquired by these youth as contrasted with meager work background of city youth was a factor in their preferences. In Los Angeles an evaluation by 1,593 students revealed that 74 percent were favorable to work experience. Sixteen percent were undecided or indifferent to it, and only 10 percent were negative.[4] In a 1953 study of cooperative training programs in Michigan for development of specific occupational skills, 1,787 students were included. Of this number, when asked if they would recommend the cooperative program to other qualified students, 1,487 said "yes," 113 said "no," and 288 were unable to say.[5] From these reports it would appear that work-experience programs have met with approval of the great majority of those concerned, although there are some problems in connection with them that need attention.

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[3] Harold J. Dillon, *op. cit.*, pp. 75, 82, 85.

[4] Stuart Anderson, "The Case for Work Experience," *American Vocational Journal*, 25: 708, Dec., 1950.

[5] Unpublished preliminary report from the Office of Vocational Education, Michigan Department of Public Instruction, Lansing, Michigan.

Organization, Administration, and Supervision of Programs of General Work Experience

In the normal operation of a school there are many tasks which might be done by students. These include work that results from students' own class and other educational activities, such as building scenery for a play, engaging in a paper drive, or staging a dinner for parents. However, the school is also an employer, and as such could provide experience for some students in connection with clerical work, food services, custodial work, or construction and maintenance of equipment. Similar activities are available in the home. There has been a tendency in recent years, in making a case for work-experience programs, for some educators and parents to minimize the work possibilities in the home. In the preceding chapter the roles of the teacher of homemaking and the parents in interesting students in these constructive homemaking activities was pointed out. There are other tasks in the home such as gardening, home decorating, and household chores which could be used to a greater extent than they have been for development of good work habits and attitudes. In smaller communities where opportunities of part-time employment are limited the possibilities of work experience in the school and at home should be explored and developed to the fullest possible extent. Teachers of vocational education and practical arts, in cooperation with parents, can do much to stimulate participation in constructive work experience of this kind.

School people who have had experience with school camping have found that students who participate in camping programs can often try out a variety of types of work similar to those offered in the school and in the home, previously referred to. In camps students have a chance to work with others of their own age. The work experience possibilities of such camps are probably greater than many have thus far realized.

The placement of students in part-time work has several important advantages, although it also presents some problems. Students gain experience in securing and holding a job. Their performance on the job is measured in terms of adult standards. Out-of-school employment often involves a wide variety of work in a given establishment, thus providing exploratory experience toward permanent choice of vocation. This will be true particularly if the student has not previously made a tentative occupational choice. To provide general education values the job held part time by a student need not be one which he hopes eventually to enter as an employed adult. During World War II many city youths were placed on farms for part-time work. The results were gratifying, not only in that farmers were able to get their work done, but the students acquired important habits of following instructions and traits of dependability, honesty, and resourcefulness necessary to success on any job. The value of farm work for any student should not be overlooked.

Programs of work experience have now been tried in enough secondary schools and over a long enough time so that several principles of organization, administration, and supervision have been crystallized by those educators and others who have studied them. Those which are discussed at this point will in most cases apply both to work-experience programs designed primarily or solely for general education, or as background preparation for employment, as well as to programs primarily designed to give experience and develop skills in a specific occupation. Special principles applicable to the latter type are discussed under the heading of cooperative-training programs.

If the work-experience program is to be successful, it must be accorded a status in the school and community equal to other school subjects. It must not be thought of as a haven for misfits or busy work for restless students. Neither should it be conceived as a "last ditch" effort to hold youth in school. Credit should be given students who successfully complete work-experience programs. The amount to be allowed should be decided by the school, although in at least one state a maximum is set. High quality of performance should be expected, as in any other school subject. In order to assist in evaluation of achievement, and to assist employers and teachers in making both in-school activities and work activities educationally valuable, a teacher or coordinator should be assigned with sufficient time in his daily schedule to make necessary contacts with employers, parents, and school personnel. It is very important that all teachers in the school be well informed of the nature and purposes of the program. They should be kept informed about the work experiences of pupils in classes they are teaching. The entire faculty should help formulate policies as well as develop programs dealing with work experience.

The relations of the school staff to the program are no more important than the relations of people in the community to it. It should be obvious that the objectives of work experience programs should be made clear to employers and their full-time employees. Most employers, while possibly acting upon altruistic impulse, will also view a long-range program of employment of untrained youth in school on a part-time basis from a realistic and strictly business basis. They will need to be convinced that they are helping themselves by spending some time in training prospective workers, that they may be building good will, and that their business will not be adversely affected. The parents and others in the community should be kept fully informed at all times regarding the purposes of the program and the progress and results of it. Naturally, not all jobs offered by employers will be suitable or acceptable for placement of students. Employers should agree to offer going wages for a beginner or apprentice. The school should take the necessary precautions to avoid exploitation on the part of the employer and make sure that the conditions, hours, and environment of the work will be such that students' health, safety, morals, or family life will not be endangered.

Not only must the proposed places of work for students be carefully evaluated, but also the students who are placed in these jobs should be carefully selected and oriented. Students at a given age or in a given school grade vary greatly in their physical, mental, and emotional development. No specific recommendation can be made, therefore, regarding the age or grade in which work-experience programs should be started or the age or grade of a student who should be allowed or encouraged to work while enrolled in school. Not counting unpaid work in connection with class activities and projects, one survey of practices showed that 79 percent of the schools had work-experience programs reaching the 12th grade; 56 percent had programs reaching the 11th grade; and only 28 and 22 percent respectively reaching to the 10th and 9th grades.[6] The work should be suited to the student. While work experience for general values can begin at an early age, as the pupil develops well formed vocational objectives and reaches the stage of physical and mental development where he is ready to acquire marketable skills he may be placed on a job where such skill will be required and in which he will be instructed in the operations involved. Information should be sought regarding the health, physical development, vocational interests, achievement in school subjects taken, personal qualities, and other data of students who are being considered for placement in part-time work while in school. Every student should be counseled regarding his choice of type of work, so that the place where he works may be best suited to him. Likewise, such information should be made available to prospective employers in connection with interviewing students. The placement of a student should become a joint activity in which employer, school authority, student, and parents should participate. The school, however, must have final authority to approve this placement for educational experience and school credit.

In administration of the program the meeting of several legal conditions should be checked, such as working permits for certain students, compliance with regulations as to wages and hours, and avoidance of hazardous occupations. If the school employs a coordinator of work experience and/or cooperative training he can be assigned to look after these matters. If not, someone on the school staff (in a smaller community it may be the superintendent or principal) should be given responsibility for supervision. The functions of a coordinator are dealt with in greater detail later in this chapter.

Experience would indicate that all parties concerned should participate in evaluating the work-experience program. The starting point is a statement of the objectives of the work-experience program.

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[6] *The Expanding Role of Education*. Twenty-Sixth Yearbook, American Association of School Administrators, Chap. VII, "Utilization of the Experience of Work in the Learning Process," Washington, D.C., The Association, 1948, p. 164.

These should be formulated cooperatively by school people, students, parents, and employers. An advisory council will be helpful in this step as well as in subsequent steps. Following the statement of objectives, an effort should be made to list the learning outcomes and other evidences of attainment to look for in determining whether the objectives are being reached. Following this, one or more persons on the school staff should develop, with the assistance of others, as needed, devices for gathering evidence. These may be in the form of periodic report forms, job progress charts, rating forms, check lists, anecdotal records, tests, or other instruments for employer, student, and teacher to use. Some evaluation should be made while the student is working and again at the close of his program. Data such as those just mentioned should be very valuable in subsequent counseling of students, in placement, and in helping him to make satisfactory vocational adjustments.

Cooperative Training Programs for Employment in Business and Industrial Occupations

In turning now to work experience with a specific vocational aim, it is desirable to define the term "cooperative training." A cooperative training program, as it will be discussed here, is one whose dominant activity is training youth for employment in jobs in industry or business. It is a means whereby a secondary school and the community can provide vocational education beyond what has been described in the preceding chapter in those occupations for which the school does not have and can not provide adequate facilities in its laboratories and shops. In a cooperative program students will spend approximately the same amount of time on the job as they do in school. They will take regular courses in the curriculum of the school to further their general education and, in addition, they will take one or more courses related to the occupation in which they are employed. Furthermore, they will receive on-the-job instruction from their employer or his foreman or supervisor.

In planning and organizing a cooperative training program in any community it is important to study the need for it. There may be some students already employed on a part-time basis in an occupation which they hope to enter. There may be a number of employers in the community who have experienced difficulty in getting experienced or trained help. The vocational interests of students not already enrolled in other vocational courses in the school, and the occupational distribution of the labor force in the community should be determined. These will help to serve as guides in determining the types of cooperative training to be provided. Those occupations should be considered in which the worker is engaged in activities which would justify at least a year of experience and on-the-job training on a half-time basis. In discovering placement opportunities and determining occupations which meet these requirements the State Employment Service and the State Department of Labor will usually be helpful.

As a result of such a preliminary survey it will usually be found that the employment-training opportunities will fall into three major types: (1) occupations in distribution (principally in retail selling but also in other fields); (2) occupations in business offices; and (3) occupations in trades and industries. The size of the community and the number of part-time employment opportunities will determine how the program will be organized. In a large community it will be feasible to have at least three programs—one for each of these three types. In some cases it will be possible to subdivide within a given type. For example, in a cooperative industrial program it might be possible to have one program for automobile mechanics, another for radio and television servicemen, and another for several trades. In a medium-sized community it may be desirable to handle students in office jobs with those in retailing, or those in retailing with students in industrial jobs. In the smaller community it will probably be necessary to put students in all three types of occupations together into one group or class. When this is done it is usually referred to as a *diversified occupations training program*. If a qualified person to coordinate the program is available on the school staff or can readily be secured, the number of students who begin the program is relatively unimportant. Any school in which one student is employed part time can start a cooperative-training program.

A cooperative training program that is to be effective requires careful selection of "training stations." A training station is the place where the student is employed part time and receives instruction from his employer in the skills required in the job. It should be in an occupation in which students will have an opportunity for employment after training that will be stable and have opportunity for advancement. The training required should be about one or two years in length. The employment period should extend throughout the training period without serious interruptions. The wages should be the same as those ordinarily paid to beginning employees. Hazardous occupations should be avoided.

In addition to these requirements and those mentioned earlier in this chapter in connection with general aspects of work experience, it is important that the employer be willing to instruct the beginning worker and to plan cooperatively the contents and methods of the instruction given. The tasks assigned to the student should include those in which he will actually get experience in those aspects of the work in which he will later be expected to have skill as an employed worker. Provision should be made for job progression—that is, movement of the student-learner from one phase to another as he acquires skill.

It is practically imperative that an advisory committee of employers of part-time students be set up to assist with the selection of training stations, selection of students, placement, and recommendation to the board of education regarding policies. Such a committee could also be very valuable in acquainting the community with the program, in periodically evaluating it, and in advisement in connection with problems which might arise.

It should be apparent that in order for a cooperative occupational training program to be a genuine success, it will be necessary to have on the school staff a person who is generally designated as a coordinator. A coordinator is actually a teacher. He differs from teachers of vocational courses in degree rather than in kind. Primarily he spends less time in the school classroom, because more learning of occupational skills is expected to take place on the job than in the school. He must, therefore, spend more time with students in the places in which they work. He will not teach them on the job, however, because specific job instruction will be given by the employer, foreman, or supervisor. It is important, therefore, to recognize some of the functions or responsibilities of the coordinator.

After selecting a training station and a student who will be placed in it, the coordinator works out a training plan or memorandum of agreement by employer, parents, student, and the school. This should be in writing so as to avoid subsequent misunderstandings. The coordinator is a public relations person. As such he will need to spend a great deal of time interviewing employers, students, and parents and in acquainting the public with various aspects of the program, as well as with its values or purposes. It is also the duty of the coordinator to schedule the student. In most cases students work a half day and go to school a half day. In some situations they work in larger blocks of time and attend school in comparable blocks of time.

The coordinator spends considerable time with the employer or immediate supervisor of the beginning worker to help him in planning his on-job instruction. To do this he will help the supervisor prepare a schedule of processes, which is a form of analysis of an occupation. This schedule is, in a sense, the course of study for the student. It will indicate the specific things which the employee-learner will need to be able to do and the order in which he will learn them. The coordinator should also help the student's immediate supervisor, when necessary, to select procedures to use in demonstrating an operation and giving instruction to a person when he is at work. There are some indications that more attention should be paid to the improvement of the quality of this on-job teaching. In one state survey, of 744 students reporting, 117 reported the supervised work experience as of "much" value, while 567 reported "some" value, and 60 reported "no value." [7]

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[7] Michigan Department of Public Instruction, *op. cit.*

The coordinator organizes related instruction and teaches it in the school to students on the program. He will typically include matters pertaining to securing and holding a job, employer-employee relations, safety, salesmanship, and similar topics. He will also secure specialized bulletins, books, pamphlets, and visual aids pertaining to a wide variety of specific occupations and will supervise study of these materials by trainees.

The coordinator will "farm out" some trainees to teachers. For example, he might assign a trainee in building trades to a teacher of drawing, a trainee in a dry goods store to a teacher of homemaking, or a trainee in photography to a teacher of chemistry. In this way the students may get special instruction in other subject matter closely related to the job on which they are working. The coordinator is responsible for follow-up of the students on the job and for helping them and their employer to jointly evaluate the students' learning and progress on the job. The coordinator will also be responsible for keeping records of progress and achievement and will assist in placement of students upon graduation. This will be of assistance in further follow-up of these persons when they enter full-time employment.

Other Ways of Cooperating in Providing Work Experience

Smaller communities and those in which there are limited employment opportunities pose a special problem. In some schools regular class work in school is supplemented by occasional employment in business or industry as opportunities arise. In others it is sometimes possible to find suitable training stations in a nearby community. It has also been demonstrated that several communities can successfully cooperate on the basis of a homogeneous, geographic area. In such an arrangement several schools would cooperate in employment of a coordinator and in sharing the combined employment opportunities, on-the-job training, and school facilities.[8] Likewise, on a

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[8] See *Service Areas for Vocational Schools*, Washington, D.C., American Vocational Association, 1949.

"larger community" basis some community colleges are providing cooperative training programs in occupations for which smaller communities and secondary schools can not provide so easily. Some state institutions are providing a similar program. For example, Michigan State University, in its non-collegiate curricula, has one-year and two-year programs in cooperation with industrial employers for training in fields such as elevator and farm-supply operations, floriculture, greenhouse operation, farm-machinery repair, and nursery practices. Students alternate terms in employment with terms on campus taking related courses.

Cooperative occupational training programs depend for their success upon the use of working opportunities in the community, the use of their immediate supervisors as "assistant teachers," and the willingness and ability of many people to work together toward a common goal. The number of communities that are making use of this arrangement to provide vocational education for youth of secondary schools is increasing. If the community-school concept were developed generally, most communities should be able to provide for vocational education in a variety of occupations using this method.

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Chapter 18

GUIDANCE SERVICES IN RELATION TO VOCATIONAL EDUCATION AND THE PRACTICAL ARTS

Guidance, as an educational term, has a wide range of meanings. To some educators it means a few special events or activities such as career days, cumulative records, a course on vocations, and counseling services. Other educators think of guidance as synonymous with education; to them, all education is guidance. It is not our purpose to debate these two divergent points of view, but rather to emphasize the need for a common understanding of the term guidance as it is used in this book. The authors take the position that guidance is more than a few special features in the educational program; it is well described by the Educational Policies Commission as follows:

> The keystone of the school program is guidance—personal assistance to individual boys and girls in making their plans and decisions about careers, education, employment, and all sorts of personal problems.
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> Guidance is no mechanical process, whereby counselors and teachers sort out boys and girls as a grading machine sorts apples—this one to stay on the farm, that one to work in an airplane factory, this one to be a teacher, that one to run the local garage. Guidance is rather the high art of helping boys and girls to plan their own actions wisely, in the full light of all the facts that can be mustered about themselves and about the world in which they will work and live.
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> Guidance is not the work of a few specialists. It is rather a service from the entire school staff, which requires some people with special knowledge and skills, but enlists the cooperation of all.

> Guidance is not limited to vocational matters. It includes the whole gamut of youth problems. Guidance, moreover, is not peculiar to the secondary schools. Good education from the earliest grades onward includes guidance from understanding teachers, principals, and counselors.[1]

Although it is recognized that guidance is broad in that it consists of many different kinds of services intended to assist the individual in making plans and decisions about all kinds of educational, vocational, and personal-social problems, this chapter will deal with those guidance services which are directly related to planning for a career and subsequent occupational adjustment. This phase of guidance is generally called vocational guidance.

It should be made clear that vocational guidance and vocational education are not synonymous. They are closely related and inseparable parts of a complete and comprehensive secondary school program, but each is distinctively different from the other. Vocational guidance is the process of assisting the individual to plan a career and to make satisfactory adjustment in his chosen occupation. Vocational education is the process of assisting the individual to develop the skills, understandings, attitudes, and habits needed in order to enter the occupation of his choice or to advance in his chosen field.

Vocational guidance is based on the assumption that there are occupational opportunities in the workaday world for everyone and that it is the function of guidance services to help the individual recognize and develop his talents. The individual is thus enabled to achieve a degree of occupational adjustment which will result in a well-balanced life.

Youth Need Help in Making Occupational Plans

A careful analysis of the problems and needs of adolescents will suggest that youth have a deep and compelling interest in planning their futures, especially in relation to their careers. Studies by Bell, and Prescott and Doane, discussed in Chapter 13, point to the need and desire of youth for assistance in planning wisely their occupational futures. There is also an abundance of evidence which suggests that the vocational aspirations and plans of many high school boys and girls are most unrealistic. A study carried out by the Social Research Service at Michigan State College[2] points to a wide discrepancy between the occupational aspirations and expectations of high school youth and the probable opportunities for employment. For example, 40 percent of the 12th grade boys involved in the study had *aspirations* to enter the professions and 25 percent had *expectations* of entering the professions. However, only 16 percent of the male labor force who have completed 12 or more years of schooling (according to the 1940 census data for the North Central States) actually were engaged in the professions. On the other hand, only 8 percent of the same 12th grade group of boys said they planned to enter jobs in the clerical and sales field while 24 percent of the male labor force was engaged in these occupations.

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[1] Educational Policies Commission, *Education for All American Youth—A Further Look*, Washington, D.C., National Education Association, 1952, p. 49.

In another study involving over 7000 fifteen-year-old pupils in the public schools of Erie County, New York (which included the city of Buffalo) 42.3 percent of the boys and 38.7 percent of the girls said they planned to enter professional, managerial, or semi-professional occupations while only 19.4 and 18.7 percent of the male and female employees in Erie County in 1950 were employed in these occupations. Conversely, of the boys 1.3 percent planned a career in sales and 2.4 percent in clerical occupations while 6.3 percent and 7.7 percent respectively of the male population were so employed. Occupational plans of girls were somewhat more realistic than those of boys.[3]

In one secondary school located in an industrial community from a class of approximately 600 students only seven boys planned to enter the field of automotive mechanics while 70 boys in the same class were planning careers as investigators for the Federal Bureau of Investigation and only three of these 70 boys planned to go on to college, in spite of the fact that the first requirement of this occupation is a college education.

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[2] *Youth and the World of Work,* Social Research Service, Michigan State College, East Lansing, Michigan, Michigan State College, 1949, pp. 4 and 5.

[3] *Erie County Needs More Vocational Education,* Albany, New York, The University of the State of New York, Division of Research, 1954, pp. 19 and 22.

At a very early age, children announce what they intend to do when they become adults. These choices are usually based on fantasy and therefore seldom persist. As children grow they are inclined to change their occupational choices; those based on fantasy recede with intellectual and emotional maturation and are replaced by more realistic choices. It is during the period of adolescence that boys and girls begin to consider realistically their interests, aptitudes, and aspirations in relation to the world of work. It should not be assumed, however, that choices made at this stage have a high degree of permanency. There is evidence pointing to the fact that an individual does not reach a final decision regarding a vocational choice at any one stage of his development but rather reaches this decision through the cumulative impact of a series of decisions over a period of many years. It is a process which starts with children in the elementary grades and may not result in a firm decision until later adulthood, but for most people it is accomplished during adolescence or early adulthood. As youth acquire new insights about themselves and their environment and as their values change, it should be expected that their occupational choices will be modified and become more specific.

Boys and girls in high school should be encouraged to make vocational choices, even though they may be extremely tentative. The student's experiences in the secondary school should be planned to help him adjust to all phases of his environment and to achieve his goals and ambitions. Since work is a part of his life while in school and will become an increasingly important phase of living as he grows and matures, it would seem imperative that his educational program include the element of preparation for work. The educational program of each individual should include experiences which will enable him to prepare for entrance into the occupation of his choice. This can only be done if he has a choice or preference, however tentative. Teachers and administrators should recognize the fact that the vocational choices of adolescent youth are constantly changing and that the educational programs of boys and girls should be modified as their occupational goals and aspirations become more clearly defined. The point is that every student should have an occupational plan in order to give meaning and purpose to his educational experiences.

The importance of helping each student in high school to develop an occupational plan cannot be emphasized too strongly. College preparatory students in high school generally have occupational plans even though they may not be very specific. Those who will take their places in the work-life of the community immediately upon leaving high school also have a need for an occupational plan, which will help them in the following ways:

1. An occupational plan can make all learning more meaningful. An educational program is most effective when it is based upon a planned series of experiences which appeal to the learner as being important. Youth *do* attach a great deal of importance to their occupational futures, and any experiences directly related to their occupational goals are likely to be more meaningful.

2. An occupational plan can provide the basis for integration in learning. Integration must take place in the mind of the student; it is not achieved by some organizational scheme or by a conference of teachers interested in different subject matter fields. The form in which the learning experiences are organized is a significant step toward integration, but only the learner himself can achieve integration in his own thinking. His occupational goal and plan can form the hub of learning. Mathematics, science, social studies, languages, and the arts are all studied in relation to this central interest.

3. An occupational plan if followed makes it possible for the individual to discover whether or not he has the abilities and interests needed to succeed in the occupation of his choice and, if not, to modify his plan accordingly.

4. An occupational plan makes it possible for each individual to focus attention on and then to develop his talents and special abilities as far as his ambitions warrant.

5. An occupational plan will motivate learning. For the individual to be motivated he must have a definite purpose, a purpose which is vital to him and something which he can attain.

6. An occupational plan encourages initiative. A student with a vocational goal will be stimulated to undertake new and challenging learning

experiences; his experiences are not limited to those growing out of study assignments or other course requirements.

7. An occupational plan starts the individual on a continuous program of learning. A boy or girl who has, as a part of his plan, the desire to excel in his chosen occupation will not terminate his learning upon completion of a course or graduation from high school. In his occupational ambitions he will find a continued source of motivation.

Ginzberg and others, in a report on a study of occupational choices, state the problem as follows:

> We started with the assumption, and in this we had the support of most experts actively concerned with vocational counseling, that there is a great waste of individual and social resources in the way in which individuals currently reach decisions about their occupations. There is waste in their failure to make the most of their own capacities, of the educational opportunities offered, of the other resources that society makes available.[4]

Furthermore, the evidence produced through research shows that as a group those high school students who are oriented toward college have more definite vocational plans than those not planning to go to college and that school leavers generally have ill-defined plans for their future work. Research also points to a positive relationship between school achievement (as measured by grades) and the possession of a vocational objective. There seems to be no doubt about the desirability of secondary school youth having well-conceived and carefully formulated occupational plans. The fact that they need help should be equally obvious.

The Nature of Occupational Choices and Career Planning

In some societies youth are destined to work in a particular occupation dictated by their class, caste, or family. During the early history of this country it was not uncommon for the son to follow the occupation of his father; in fact, the father frequently taught his son the skills and technical understandings needed for occupational success.

[4] Eli Ginzberg and Associates, *Occupational Choice*, New York, Columbia University Press, 1951, p. 17.

Under these conditions the problem of making an occupational choice was relatively simple. The freedom which youth in our democratic society have to choose from among the thousands of different occupations presents a situation which cannot be solved alone by a course in "occupations" in the 9th grade or an annual "career day." It requires a series of experiences in connection with the elementary and secondary school programs which will help children and youth discover their aptitudes, interests, and abilities, as well as their limitations, and to project their individual patterns against the requirements of the many occupations for which any given individual might have the necessary potential. Ginzberg summarizes the findings of a study on occupational choices as follows:

> First, occupational choice is a process which takes place over a minimum of six or seven years, and more typically, over ten years or more. Secondly, since each decision during adolescence is related to one's experience up to that point, and in turn has an influence on the future, the process of decision-making is basically irreversible. Finally, since occupational choice involves the balancing of a series of subjective elements with the opportunities and limitations of reality, the crystalization of occupational choice inevitably has the quality of a compromise.[5]

Ginzberg has analyzed the process of decision-making into three periods—the period of fantasy choices, the period of tentative choices, and the period of realistic choices. During the fantasy period the child is not yet able to assess his abilities or the nature of various occupations. His occupational choices are arbitrary.

The period of tentative choices, which begins at 10 to 12 years ot age, is "characterized by the individual's recognition of the problem of deciding on a future occupation." Ginzberg has identified four stages through which youth pass during the tentative period. First, the interest stage during which boys and girls think almost exclusively in terms of their interests in relation to an occupational choice. Second, the capacity stage during which boys and girls begin to recognize their capacities and attempt to evaluate them in relation to occupations. Third, the value stage during which they realize that their capacities, interests, and values may be conflicting, thus making it necessary to establish a system of values which will help them resolve these conflicts. And the last stage in the tentative period is

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[5] *Ibid.*, p. 198.

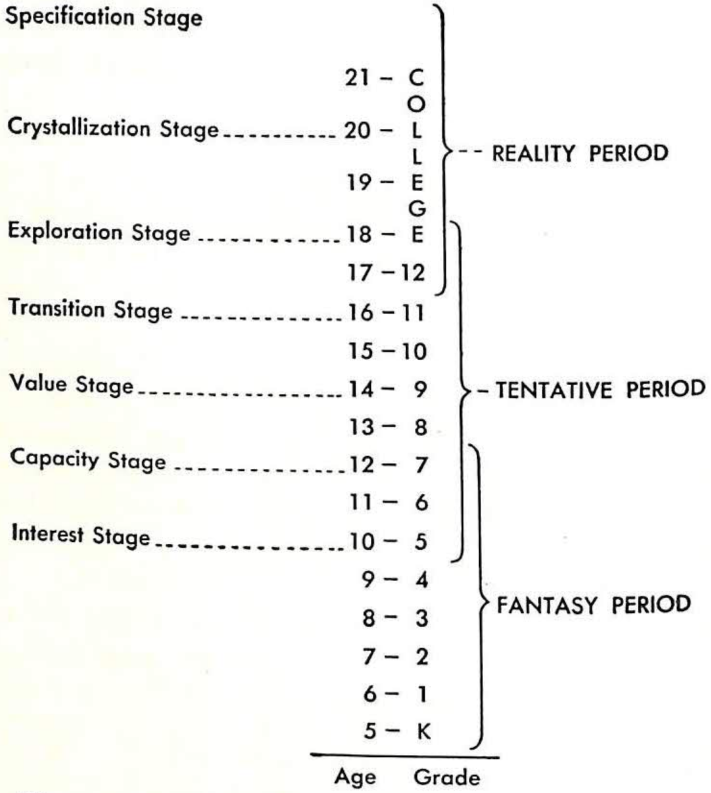

Figure 2. Periods and Stages in the Process of Choosing an Occupation. Adapted from a study by Ginzberg and Others in *Occupational Choice—An Approach to a General Theory.*

the transition stage which, according to Ginzberg, has two characteristics, "a general calming, which reflects the end of the turmoil of early adolescence, and an increasing awareness of reality factors."

The reality period begins at 16 to 18 years and is divided into three stages—exploration stage, crystallization stage, and specification stage. During the exploration stage the young adult is attempting to bring his subjective elements into focus with the realities of occupations. During the crystallization stage he commits himself to a vocational objective even though the details have not yet been worked out, and in the specification stage he further defines his area of specialization within the field of his choice, usually after considerable training and/or experience.

While Ginzberg's study dealt primarily with adolescents from upper income families, the study also included boys from the lower income group. The study identified at least three major differences in the backgrounds of boys from these two groups which have an effect on their occupational choices. Social or cultural backgrounds, secondary schools attended and courses taken, and economic resources available are factors which operate on the process of choosing a vocation. The theory of occupational choice outlined above and diagrammed in Figure 2 is equally applicable to youth from families in the lower income group excepting that the economic pressures place certain limitations upon the occupational areas in which they are likely to make a choice, and the process may be accelerated because of economic necessity.

Super has taken a more comprehensive view of the problem of occupational choice by outlining a theory of vocational development in the form of a series of ten propositions.

1. People differ in their abilities, interests, and personalities.
2. They are qualified, by virtue of these characteristics, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests, and personality traits, with tolerances wide enough, however, to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, the situations in which people live and work, and hence their self concepts, change with time and experience (although self concepts are generally fairly stable from late adolescence until late maturity), making choice and adjustment a continuous process.
5. This process may be summed up in a series of life stages charac-

terized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage, and (b) the trial and stable phases of the establishment stage.

6. The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed.

7. Development through the life stages can be guided, partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self concept.

8. The process of vocational development is essentially that of developing and implementing a self concept: it is a compromise process in which the self concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.

9. The process of compromise between individual and social factors, between self concept and reality, is one of role playing, whether the role is played in fantasy, in the counseling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs.

10. Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate.[6]

The importance of making occupational choices and the relation of career planning to current educational pursuits is clearly stated by Ginzberg:

> Both high school and college enable students to fulfill requirements for a diploma or degree through the completion of courses which are frequently not meaningfully related to each other. This further contributes to obscuring the relationship between current educational pursuits and career plans. This shortcoming is related not to the amount of freedom

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[6] Donald E. Super, "A Theory of Vocational Development," *The American Psychologist*, Vol. 8, No. 5, May 1953, pp. 189 and 190.

allowed a pupil in the selection of his courses, but to the significance of the structure of the work which he pursues, which must be assessed primarily in terms of his long-run objectives, educational and vocational. We have outlined the difficulties facing students in attempting to select a program of courses unless they have progressed toward the delineation of their occupational choice. A tentative or crystallized choice gives direction to their educational selections. It is particularly important that those who are encountering difficulties in determining their occupational choice be restrained from following a truncated educational program in which the parts are unrelated to each other and the whole remains unrelated to the future. Educational direction would help these individuals to discover how the school experience can contribute to the clarification of their occupational plans.[7]

The Practical Arts Have a Contribution to Make

The educational experiences provided for youth in our secondary schools should (1) help them to make an occupational choice and once the choice has been made (even though it is tentative) and (2) help them to achieve their occupational goals. The practical arts have a contribution to make in both respects but particularly in relation to the former. The practical arts should serve to develop new interests and to further define existing interests; they should help the individual to discover and better to understand his abilities as well as his limitations, and they should provide the opportunity for the individual to acquire some insights into the realities of the world of work.

Through the practical arts, boys and girls are introduced to elements of our environment with which they have had little or no previous contact. Experiences designed to provide youth the opportunity to handle materials, to work with tools, to create, to manipulate, to construct, will open up new fields of interest and will serve to further explore previous interests.

In order for an individual to assess his capacities he should have the opportunity in his school experiences to test them. Most school subjects or activities provide ample opportunity for boys and girls to test their intellectual capacities. Through the practical arts youth are given the opportunity to work in the physical aspects of our environment. Those who have the capacity to deal effectively with abstract concepts (as well as those who have less of this ability) should have some acquaintance with the materials, processes, and products of agriculture, business, industry, and the home. Through a series of experiences in the practical arts youth frequently will discover that their capacities are not in the area of working with their hands. To discover this would seem to have several desirable outcomes: first, it should help the individual progress toward the choice of his own occupation and second, it should cause him to have more respect for those who plan careers in occupations which depend heavily upon the effective use of the hands.

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[7] Eli Ginzberg and Associates, *Occupational Choice,* New York, Columbia University Press, 1951, pp. 241–242.

Through the practical arts, boys and girls should acquire insights about the world of work. As they study the organization, material, processes and products of agriculture, industry, business, and the home and the people who work in each of these areas, youth are helped to form more realistic concepts about the world of work. These understandings will undoubtedly advance the process of decision-making in relation to occupational choices.

Vocational Education and Vocational Guidance Are Inseparable

While it was pointed out in the beginning of this chapter that vocational education and vocational guidance are not the same, the relationship between the two is such that they must go hand in hand.

The educational programs followed by boys and girls in our secondary schools should include experiences which will help them advance toward their occupational goals. This makes it necessary that youth have at least tentative vocational plans before they can intelligently plan an educational program. Conversely, a vocational guidance program is of little value if it is not accompanied by a vocational education program. Many of the benefits to be derived from a program designed to help boys and girls make wise occupational choices will be lost if they do not have available to them educational experiences bearing a direct relationship to their occupational goals.

Youth who plan to find employment in the territory served by the school upon completion of their secondary school program need help in making the transition from school to work. This is more than a placement function of guidance and can be facilitated through experiences which are a part of their vocational preparation. The cooperative work-study program, in which real work experiences on the farm, in the home, in business, or in industry on a part-time basis are combined with experiences in school, aids many youth in making the transition from full-time school to full-time employment.

The Place of the Guidance Specialist

In each community and within each school in the community there is need for a person familiar with the methods and techniques employed in carrying out effective guidance functions. This person in the community-wide position may have the title of Assistant Superintendent in Charge of Pupil Personnel Services, or Guidance Director, and within the school organization he may be called Head Counselor or he may actually be chairman of a guidance committee. In any event there is a need for well-qualified individuals to give leadership to the program and to coordinate the guidance activities. In smaller schools this may be a part-time function, and occasionally the principal serves in this capacity. Because of the nature of some of the principal's duties, this is considered by many to be a less desirable arrangement than to have someone else on the faculty perform these functions, especially the counseling function.

The head counselor or guidance program leader should be interested in and competent to develop a comprehensive program of individual adjustment; a major portion of his activities deal with occupational adjustment, therefore he should be qualified to deal with problems of occupational choice, occupational preparation, and placement in employment. For this reason it is important that the person filling such a position have an understanding of the world of work and how people can prepare to enter it and progress in it. Work experience outside the classroom is one way in which teachers preparing to assume leadership roles in guidance can get those insights and understandings which will better prepare them to help youth with their problems of occupational adjustment. To obtain a counselor's certificate in the public school system of New York State, one must have had at least one year of experience in business or industry.

The Place of the Teacher as a Member of the Guidance Team

The teacher, both as an individual and as a member of the faculty, is the key to a successful guidance program. While the functions of leadership and coordination are essential the operation of a guidance program requires the cooperation of the entire faculty.

A representative group of the faculty, usually those interested in the improvement of guidance services and qualified to assist in planning a program, may be organized as a guidance committee which serves in an advisory capacity to the principal. The function of the committee is to plan and coordinate the guidance activities of a school. The principal should work as a member of this committee since many problems of the committee are of an administrative nature; he, of course, reserves the right to make final decisions, because he also assumes the responsibility for the administration of the school. The success of such a committee depends upon a feeling of mutual respect and a willingness to work cooperatively. Teachers of the practical arts and vocational subjects have a unique contribution to make as members of a guidance committee.

The teacher is the central figure in the guidance program. Since the teacher meets a given group of boys and girls daily for a period of a semester or longer, he has an opportunity to discover their individual interests, needs, goals, aspirations, plans, and problems and to be of maximum service to each child by helping him to make the best possible adjustment to his environment. Teachers who have students for more than one period each day have an excellent opportunity to know and understand their students. In agriculture and homemaking teachers make it a practice to visit the homes of their students and thereby learn much of value in counseling. The unified studies or "core" teacher, the teacher of agriculture, the vocational industrial teacher, the coordinator of a cooperative program, and frequently teachers of the practical arts have a double advantage; generally they have more time per day with each student, and the teacher works with the student in a less formal setting on problems of real concern to the latter.

Teachers of all subjects in the secondary school curriculum may help youth make a satisfactory vocational adjustment. Teachers may enhance the exploratory value of their subjects by emphasizing the vocational implications; they can help youth understand themselves, their interests and capacities in relation to vocations; and they can broaden their understanding of the world in which we live, thereby opening new horizons.

The teacher is important to the success of the guidance program in a number of other ways. He should consider it his responsibility to (1) acquaint pupils' parents and other citizens in the community with the school's guidance program, (2) gather and record information helpful to other staff members in assisting students to make choices, (3) provide information about occupational fields in which he has had experience, (4) assist in the operation of a comprehensive placement service, (5) cooperate in follow-up studies, and (6) counsel students to the extent that he is competent. This should not be interpreted to mean that all teachers should perform all guidance functions. There are functions to be performed which require more specialized training than most teachers possess. These should be reserved for the specialist.

Qualifications of Teachers and Counselors Who Perform the Guidance Services

The foundation of a good guidance program lies in the educational philosophy of the administrator and faculty of any school. If their planning is done in terms of groups of pupils to be taught and bodies of subject matter to be learned, there will be less need for guidance services than if they are concerned with the needs of the individual and the community in which he lives. Increasingly, teachers and administrators are planning educational programs with attention focused on the needs and potentialities of each pupil and on the opportunities which can be given him for personal development, intelligent planning, and finally the realization of his considered goals. If this is the philosophy of the staff of any school their efforts will be directed toward a single purpose, that of helping each individual discover his potentialities and apply his energies to the end that he achieves the best possible adjustment in the classroom, in community activities, in his personal living, and in an occupational area. The individual is the focal point, and all activities of the school stand or fall on the criterion of their contribution to his growth and adjustment. Acceptance of this philosophy demands continuous study of trends with respect to vocational opportunities, as well as continuous attention to the characteristics and capacities of the individual pupil. The extent to which a faculty subscribes to this philosophy will determine the nature and scope of guidance services needed; in fact, it will determine their attitude toward guidance activities.

An interest in developing an adequate program of guidance on the part of both the administration and faculty is an essential element. Regardless of the attitude of the faculty, little can be accomplished unless the administrator is interested in and sees a need for guidance services and is willing to provide staff time and other essential resources. On the other hand, guidance services are relatively ineffective without the cooperation of the majority of the faculty. But where the philosophy described above is present in a school, one is likely to find a high degree of interest. If not, someone must generate this interest before significant steps can be taken.

Assuming that a faculty has a philosophy conducive to the development of a guidance program and is interested in developing appropriate services, the next step is to make an analysis of the competencies of individual staff members in relation to specialized functions which each might perform. Certain members of the faculty are interested and may be proficient in the field of testing, occupational information, job placement, follow-up studies, counseling, or some other element of a comprehensive guidance program. Each member of the faculty should be encouraged to develop his proficiency in that area of guidance in which he is especially interested, and in addition, all teachers should be expected to have or to acquire certain qualifications which will enable them to contribute to the operation of an effective guidance program. Among these qualifications would be included:

1. A philosophy of education which places the emphasis upon the needs of individuals and the needs of the community in which they live.
2. A desire to help boys and girls discover and develop their interests and capacities.
3. An understanding of adolescent growth and development.
4. An understanding of the principles and practices of guidance.
5. A knowledge of the world of work, preferably gained through experience in it.

Teacher education institutions are now attempting to instill these qualities in young men and women preparing for the profession, but the job cannot be done entirely on a preparatory basis. In the first place, experience in teaching is a part of the foundation needed on which to build many of these concepts and competencies, and in the second place, there are many teachers who received their formal preparation for teaching during the time when a different philosophy of education prevailed.

In each school someone must be responsible for coordinating all the various guidance activities and for leadership in improving the guidance services. The guidance specialist should have all of the qualifications mentioned above for teachers. In addition, he should be an individual who has had a number of years of teaching experience, a well-adjusted person who works cooperatively with others, familiar with the world of work especially as it is related to the community in which the school is located, familiar with effective counseling techniques as well as other successful guidance practices, and able to elicit the cooperation of other community agencies.

Guidance Services Should Be Coordinated with Related Services and Agencies

School guidance services should be closely coordinated with the related services and agencies in the community. The school and community agencies should exchange pertinent information, and each should use the resources of the other to supplement its own resources. The school guidance personnel should work very closely with labor and management, social service, philanthropic, governmental, and other appropriate agencies. Effective working relationships should be developed and maintained with such community groups as employers and employees, with employment services, and the public in general. The school should realize that its responsibility has not ended when the pupil has been graduated or has left school. Out-of-school youth and young adults should be furnished guidance services, especially in relation to earning a living.

For Whom Are Specialized Vocational Courses Intended?

In 1945 the United States Office of Education published a bulletin with the title, *Selection of Students for Vocational Training*.[8] While the title may suggest that the school selects students for specialized vocational training, a section in the introduction under the heading, "This Bulletin Develops the New Rather Than the Old Conception of Selection," makes the position quite clear.

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[8] *Selection of Students for Vocational Training*, Vocational Division Bulletin No. 232, Occupational Information and Guidance Series, No. 13, Washington, D.C., United States Office of Education, 1945.

> The traditional meaning of "selection" emphasizes the role of the school in deciding to accept or reject an individual for training. By implication, at least, the decision of the school has been preceded by the setting of certain qualification standards which prospective trainees must meet. The decision presumably rests upon a judgment by the school as to how the characteristics of the trainee meet the qualification standards. Moreover, the traditional meaning of selection assumes a larger number of applicants than trainees. And since the qualification standards are set by conditions relating to the school or to employers or to other factors outside the trainee altogether, the school tends to interpret its obligations as owed to the factors which set the standards. The trainees and the rejected applicants (particularly the latter) are of secondary concern.
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> In contrast, the conception of selection as developed in this bulletin views the part played by the prospective *trainee* in choosing an occupational goal, and consequently the training which leads to it, as the more important part of the process of selection. Acceptance of this conception of selection makes it easy to see: (1) that basic guidance procedures offer the best means through which the student can make his choice; and (2) that the school through these procedures can realize all the values of selection in the traditional sense and at the same time enhance the welfare of the prospective trainees. In theory, at least, the vocational programs will be more sure of getting trainees suited to the demands of the training than when the traditional selection and rejection procedures are followed.
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> If this conception of selection is carried out completely and backed by a full range of educational opportunities accessible to all in terms of needs and circumstances, there can be no residue of rejected individuals. The selection process must find opportunities for all. Moreover, certain problems which now exist in the relationships between vocational schools and other divisions of education would be largely eliminated.[9]

The bulletin goes on to say that selection is a joint responsibility; selection *by* the student is inseparable from selection *of* students. The process by which the individual chooses an occupation resulting in a need for training which will prepare him for that occupation has been described in detail earlier in this chapter. The school must exercise a function of selection because it has obligations to society as well as to the individual. The U.S. Office of Education bulletin lists three obligations which constitute the basis upon which the

[9] *Ibid.*, pp. 4 and 5.

school's decision must rest: (1) to promote the most favorable adjustment of the individual trainee, (2) to meet the demands of the employment market as to numbers trained and kinds and levels of training required, and (3) to make a maximum contribution to the social and economic well-being of the community which supports the program. What appears to be an issue of finding the best student for the training versus finding the best training for the student does not need to be an issue. The former is the result when the latter is employed as the means, provided, of course, that a full-range of training opportunities is available and can be adapted to the range of individual differences.

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PART VI

Vocational Education and Practical Arts for Adults

INSTITUTE OF EDUCATION FOR WOMEN
Dept. of Extension
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CALCUTTA-27

Chapter 19

THE NEED FOR VOCATIONAL EDUCATION AND PRACTICAL ARTS FOR ADULTS

"It is not the education of children that can save the world from destruction, it is the education of adults."—H. G. Wells

The beginning student of adult education is struck by its diversity in contrast to the education of children in school. We find informal, individual, or group instruction, formal classes, cooperatively organized learning activities, classes sponsored by organizations, courses by institutions, experiences provided by institutions, to name only a few. The persons we classify as adults are extremely heterogeneous in their interests, their abilities, their background of schooling, and their family and social group experiences. Their ages may range from 16 to 80 since for purposes of this discussion we are including as "adults" all those not attending school during typical working hours and who have either graduated or dropped out of school. Community schools should make provision for the education of these adults.

In America today there is a greater proportion of the people going to school than in any other country of the world. An impressive segment of these enrollees are grown-ups. A study by the Division of Adult Education of the National Education Association Research Division revealed an estimated enrollment of 4,744,256 adults in 1951. It was further estimated from a representative sample of schools studied that in the four years, 1947–51, the enrollments in public-school sponsored, adult classes increased 51.2 percent.[1] In 1953 more than three million adults were enrolled in classes offered in the public schools alone.

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[1] Helen Allion and Robert A. Luke, "Public School Adult Education in the United States," *Adult Education*, 3: 69–75, Feb., 1953.

The recent lengthening of the life span of man is well known. It and a growing feeling of responsibility for older people have helped to focus attention on the adult population. The 1950 census shows a total of 150,697,000 people. Of these, about 97 million, or nearly 65 percent were over 21 years old. So it would appear that we have barely scratched the surface in providing instructional opportunities for persons no longer regularly enrolled in school. Lay citizens and school people seem only dimly aware of the many and varied instructional needs of adults arising from problems encountered in living and working. Havighurst points this out very clearly.

> Of all the periods of life, early adulthood is the fullest of teachable moments and the emptiest of efforts to teach. It is a time of special sensitivity and unusual readiness of the person to learn. Early adulthood, the period from eighteen to thirty, usually contains marriage, the first pregnancy, the first serious full-time job, the first illnesses of children, the first experience of furnishing or buying or building a house, and the first venturing of the child off to school. If ever people are motivated to learn and to learn quickly, it is at times such as these. . . . It makes one wonder what education is about, after all, if it is not directly concerned with helping the individual to meet such problems as these.[2]

Professional educators and lay citizens should become aware of the educational needs of mature persons and of what their community school might provide. If they do this they must adopt a point of view with regard to education of all the people in their community. The authors present a point of view with special emphasis given to those needs of adults that lie within the general areas of vocational education and the practical arts.

A Point of View about Adult Education

The findings of Thorndike that the ability of persons to learn diminishes very slowly with advancing age, and that it seldom drops to an ineffective level before senility have given hope to many people who find it necessary to learn new skills and have brought courage to educators who were looking for scientific sanction of programs of adult education which they had envisioned. People are finding that not only can they acquire new skills or improve upon those they possess, but also that they can be helped to remain young in mind and spirit. One educator has aphoristically said, "We don't stop learning because we grow old; we grow old because we stop learning." It is becoming a common experience in this century to see doctors, lawyers, and ministers return to school, as well as millions of less educated people in other walks of life.

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[2] Robert J. Havighurst, *Human Development and Education*, New York, Longmans, Green and Co., 1953, p. 257.

There are, however, a few erroneous concepts that must be abandoned if we are going to give all persons in a community a chance to get the education they want. One of these concepts is that education is a preparation for later life. So long as education is thought of only in terms of its deferred values it will be difficult to evaluate it properly in light of today's needs. Associated with this idea is the concept of education as something that is finished at graduation or at school leaving. The "terminal" concept of schooling will need to be set aside.

It is pretty generally agreed by educational psychologists that teaching is more efficient when the learner can relate new learning to previous experiences. The older person has had more experience and is therefore in a position to link new ideas or new techniques to his experience. How soon the learner will use the newly acquired abilities is another aspect of learning efficiency. The adult can put the learning to use immediately. In the case of occupational skills he may be able to use them daily, and for several hours each day.

The full-time worker who seeks and gets instruction aimed at improving his vocational skills realizes that such learning will mean dollars in his pocket. This will be true whether he is getting ready for a different job or for a promotion with higher pay; or whether, as a self-employed farmer or merchant, he has learned how to realize more profit through more efficient management, better use of his time, or exercise of better judgment.

One of the major premises advanced in this book is that the people of a community, particularly the adult citizens, should actively work together to develop community schools. To do this they will need to sit together in groups to identify and think through their common problems. Adult education can contribute to this problem-solving ability. The authors of a recent book on adult education point out:

> To be socially significant in these times, an adult-education movement must make some contribution to the improvement of both the quantity and the quality of citizen participation in the solution of individual and social problems. The trend toward declining participation . . . can be reversed and the vitality of the democratic system restored.[3]

There are few ways by which the support of the adults of a community could more readily be enlisted for the program of the school than by serving their educational needs through the school. A community school must avoid any manifestation of preoccupation with the education of children.

It is not good economy to limit the use of school facilities on the basis of age of learners. Expensive laboratories and shops and costly equipment for high schools become less costly per student when these facilities are used for adult education as well. They could be used on days and at times of the day when children are not attending classes. Viewed in this light, adult education for vocational purposes can pay for itself, when we consider the increased earning power that it can develop.

The point of view of non-participating adults has been unduly narrowed because they associate the term "adult education" with education of foreign-born and native illiterates. The eminent success of these programs in the early days of public school adult education in our larger cities created a stereotype in the minds of some people. Another concept that needs to be corrected is that of schooling as teacher-dominated and undemocratic. Many of our grown-ups have unhappy memories of their school days. Some of them could not succeed at the teacher-assigned tasks at which they worked unwillingly. Others became frustrated from lack of opportunity to exercise their initiative, imagination, or resourcefulness, or from lack of a chance to do the things which held meaning for them.

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[3] Paul Sheats and others, *Adult Education: The Community Approach*, New York. Copyright 1953 by The Dryden Press, Inc., reprinted by special permission.

The school leader in adult education should be unperturbed if a lay citizen or fellow teacher says, "I don't think adults want to be educated." This has no more logic than the intimation by the manager of a store that people do not want the goods he has to sell. It is important for school people to understand the psychological and sociological factors bearing upon the needs for and interests of mature persons in further schooling.

To return to the fallacy of the "deferred value" concept of education, let it be said that leaders in vocational education generally believe that the time to teach occupational skills is when they are needed. This truth was pointed out by one of the pioneers in vocational education:

> If a youth of sixteen years of age has before him the possibility of 1,000 hours of schooling, when during his life, will be his best time to use it? . . . The unqualified answer is to advise him to string it along, a unit at a time, as he finds immediate need for it. . . . The best time for any one to learn anything is *when he needs it.* This is the basis of the fundamental argument for adult education.[4]

There is another way in which the community school profits from offerings of instruction for others than children. Teachers in high school or elementary school who also teach adults often get a new point of view which improves their teaching. They are dealing with experienced persons who bring new ideas and challenge their minds. These voluntary class members will give the teacher the "absent treatment" at any time they feel they are not profiting from the course.

Vocational education of adults will yield dividends to the community more quickly than similar instruction for youth in school. In any community there are more persons employed in a given occupation and, therefore, there is greater potential enrollment in a given vocational course than of high school youth for the same occupation. For example, every farmer is a potential enrollee, but many will not have sons currently enrolled in high school. If there is any community of which it can be said that there is no need for vocational education of adults in a particular occupational field, that community probably can not justify a similar vocational course for high school students.

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[4] The late Dr. Charles A. Prosser of Dunwoody Institute, pinchhitting on short notice for an absent speaker, at the Philadelphia convention of the A.V.A. as reported in the *Industrial Education Magazine* field notes, February, 1929, Vol. 30.

Vocational Education of Adults Is Increasing in Importance

One indication of the acceptance of education of out-of-school people is the increasing extent to which local communities and state governments support public school adult education programs through taxes. In a survey of selected schools and community colleges Kempfer and Wood found that over 90 percent of the costs were borne by taxes and that in fewer than one-third of the cases did the participants pay a fee.[5] Evidently the supporting public views instructional activities for themselves as a legitimate function of the schools they support.

Most adults who want to continue their education are interested in instruction that is related to their occupation or to improving their economic status. A survey of "Why Adults Attend School" reported in one state involved 5,211 adults enrolled in organized school instruction. It was found that the five reasons given highest rating by the men were in order:

1. "Need technical or specialized knowledge related to my occupation."
2. "Must have education to be successful in life."
3. "Make me more secure in my position."
4. "Preparation for another occupation."
5. "Attending classes will help to earn more money."[6]

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[5] Homer Kempfer and William R. Wood, *Financing Adult Education in Selected Schools and Community Colleges*, Bulletin 1952, No. 8, Federal Security Agency, Office of Education, Washington, D.C., U.S. Government Printing Office, 1952, p. 71.

[6] David Nicholson "Why Adults Attend School: an analysis of motivating factors." Unpublished Doctoral Dissertation, Columbia, Missouri, Library, University of Missouri, 1948.

Although the women placed first the reason, "To become familiar with fine arts, humanities, and sciences," the next two reasons were the same as numbers 2 and 4 above. Likewise, in the national study previously referred to the conclusion was drawn that "Vocational competence and economic efficiency was rated as one of the three most important goals by 76 percent of the school systems—far more than any other. It ranks second as the one *major* goal, being so listed by 27 percent of the replies."[7] This study further reveals that two-thirds of the enrollments were in the four fields: commercial and distributive, non-agricultural vocational and technical, academic, and home economics.[8] These facts would indicate that vocational education should receive a great deal of attention in any school-sponsored arrangements for instruction of adults.

We may look at the status of adult vocational education in another way. The size of the enrollment of high-school youth in vocational courses is impressive. The U.S. Office of Education, however, reports enrollment data in reimbursed programs of vocational education that show nearly 54 percent of the enrollments were for adults and out-of-school youth. In the ten-year period—1943 to 1953—these enrollments increased from 1,237,722 to 1,661,891. The largest enrollments have been in home economics, followed by trades and industry, agriculture, and distributive occupations.[9]

The scope of vocational and other education of adults is in part responsible for the strong, vigorous organizations of professional people engaged in the education of adults. The Adult Education Association of the U.S.A. is a national organization which includes in its membership not only public school adult educators, but also those engaged in informal programs, in organization-sponsored activities, and in many other types of adult education. This organization and similar ones on the state level are helping to make the public aware of the immense significance of this movement and to help professional adult educators to be more effective in providing education for those not enrolled full time in schools. It is helping to develop and try out techniques for studying local community needs of adults and for evaluating local programs of adult education.

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[7] Helen Allion and Robert A. Luke, *op. cit.*, p. 71.

[8] *Ibid.*, p. 72.

[9] *Digest of Annual Reports of State Boards for Vocational Education*, Fiscal Year Ended June 30, 1953, Washington, D.C., U.S. Department of Health, Education, and Welfare, Office of Education, 1954, p. 6.

Establishment in the Occupation

One of the needs which all school people should recognize is for conserving and augmenting the educational gains made in the secondary school. Youth in the secondary school can be trained in skills and aided to make a beginning in some occupation in which these skills may be used. These skills should not be lost during the period when the young man or woman is becoming established in an occupation.

The young person who enters an apprenticeship will hope to become a journeyman. He should be provided with related training and counseling. The young man who has advanced to a father-son farm partnership upon leaving school needs to advance toward full operatorship, to increase his equity in the business, and to improve his efficiency. The store salesman is hoping to increase his efficiency in selling and to advance through promotion to greater responsibilities. The young bride or prospective bride is concerned with acquiring abilities in establishing a home and learning how to be successful in starting and raising a family. All of these young adults have several things in common. They need new or improved vocational skills. They are in an excellent position to put these abilities to use. In fact, they can spend most of their waking hours applying what is learned. They are in that stage in life where establishment in the occupation is their immediate goal.

Progress in the Occupation

Some workers, once placed in a job that they can do to their own satisfaction, are content to remain in their present status. Most will, however, aspire to a higher paying job, to a job carrying more prestige, to one with better working conditions, to one which is more permanent, or to one that they view as offering greater promise. The worker must, therefore, be prepared to advance to the next job ahead by being trained for more complicated work. A job meeting these qualifications will usually require a higher degree of ability or a different skill from the one in which the worker is presently engaged.

The mass production worker is trained in a limited number of operations. He is not prepared to perform operations that require all-round knowledge of the trade. The same may be said of the farm laborer, who is able to do chores and manipulative work about the farm and to exercise judgment in minor decisions. If he is to operate a farm he needs to learn how to plan and to do many things that he has not done before.

Progress in an occupation often leads to supervisory authority. So qualities of leadership in many cases need to be further developed. Vocational education of adults should include the development of abilities of workers in business, industry, in the home, and on the farm necessary to help them to cooperate in the mutual improvement of their working situations, their homes and their local communities.

Changing Technology and Worker Efficiency

Changes in an occupation resulting from application of technology are felt most by working adults. There are employees whose jobs might suddenly change when a new process is adopted with which they are unfamiliar. They have the choice of acquiring new abilities or of changing jobs to allow someone to take over who possesses the required skills. The introduction of new machinery will often have the same effect.

The numbers of unemployed always include persons who have lost their jobs for various reasons. It may be because the demand for their skill has fallen off, because the demand for the product they are making or selling has declined, or because of some technical change.

These persons are in need of specific vocational education. Oftentimes the school could provide it.

The efficiency of self-employed persons varies tremendously. Large numbers of small private enterprises go bankrupt every year. Anyone who has some capital can start a business. Only those who make a profit can continue in it. Farming is a good example of extremes in efficiency. The census of 1950 reveals that the top 2 percent of farms accounted for 25 percent of the farm sales and that 50 percent of all farm sales were made by only 10 percent of the nation's total farms.[10] In some fields, at least, the gap between the most and the least efficient workers appears to be growing, not narrowing.

New Occupations and New Operations and Jobs

The impact of technology upon the nature of a job or occupation has been commented on. But in many instances totally new occupations have been created and in some instances there are new combinations of operations to constitute virtually new jobs. For example, television has created new jobs in television service, television camera operation, and other program-production occupations. Refrigeration, food-freezing, air-conditioning, use of plastics, and successful atomic generation of electricity are but a few of the recent developments that have created new jobs, and that will result in others, as well as in new operations. These developments all forecast the need for training of adults in new skills.

There also is a development of double occupations for many people. The 1950 census shows 1.6 million farms in the U.S. that were operated by persons on a part-time basis who worked at another job part time. Whether·the person is a farmer taking on a second job part time or a worker in business or industry who is going into farming part time, he is in immediate need of new training. The same can be said of the mother or wife in the home who is also working for wages part time or who wishes to do so. Many teachers work at different occupations during the summer months.

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[10] From editorial in *Better Farming Methods*, 26: 8, Jan., 1954.

Vocational Education and Job Satisfaction

Aside from the economic necessity of acquiring salable skills for new jobs or rapidly changing occupations the happiness of individuals is important. As pointed out in a previous chapter, workers who are highly competent take more pride in their work, and as a whole are better satisfied in their occupation. The most unhappy worker is one who is unemployed—who feels he is not needed or who thinks that he cannot qualify for a good job. Although vocational education of adults will not, in itself, reduce unemployment it is essential that it be made available to persons who are seeking new jobs.

Many older persons find it difficult to regain employment each year because of an accident or an illness that leaves them physically handicapped. Our national government in 1953–54 spent 25 million dollars to assist the states in a civilian rehabilitation program to make physically handicapped persons employable. This service can be successful only as vocational education programs are available or are provided to which these persons can be referred. The public schools have a responsibility here.

Adults and the Practical Arts

In addition to the needs in the area of occupational competence, most grown-ups would like to continue to have a chance to try their hand at something new, to develop abilities for their own personal satisfaction, and to find some new interests. They should be able to do so, using the same or similar materials and equipment in laboratories and shops as those that are used for vocational training of other persons. This need was pointed up in Chapter 4. Partly because of higher costs of services and materials and partly because of increased leisure time, the adults of this country are spending more and more time in making things and repairing things for themselves. It is estimated that, while in 1942 hired painters did 90 percent of the painting around the house, ten years later two-thirds of it was done by the people living in their homes. It is also estimated that half of the home owners of this country are their own paperhangers. Sales of home power tools from 1947 to 1952 jumped 1233 percent. It is now estimated that 11 million homes in this country have workshops containing billions of dollars' worth of equipment.[11] In addition to these are the "do-it-yourself" shows where people may exhibit the work of their hands and get ideas from seeing things others have made.

Aside from the increased time available to work with materials and the economic needs of people there is also a psychological reason for this "work in leisure." Many people find relaxation in working creatively with their hands if their vocation involves little physical activity or is merely repetitive. "Pottering around" is an antidote for jangled nerves brought on by the fast pace and the pressures of modern society. Part of the reason for migration of city workers to suburban and country areas is that they want to live where they can get close to nature. People who do this find that they have land on which they can work off physical energy, but also where they can produce food and things to beautify the home. Many of the needs just discussed relate to homemaking in its broader sense. There is often a tendency on the part of educators to think of homemaking as including only those aspects related to feeding, clothing, and caring for the family, or in providing or improving the home. However, a greater variety of courses would undoubtedly be in demand, given the proper study of interests and local arrangements in the community school for people to teach each other the skills they have acquired.

Much has been written and said about the disintegration of the home, the monopolizing of recreation by commercialized amusement, and the loss of skills of handicraft. The schools could help people to find new interests at home and to develop skills which they could use in keeping themselves constructively occupied and in contributing to a happier, richer home life. To do this they should offer instruction for adults in the practical arts.

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[11] Andrew C. Lang, "Do-It-Yourself Fad Changing U.S. Homes," *Detroit Free Press*, 123, No. 19, Sec. C. P. 2, May 24, 1953.

Practical Arts for the Aging

Not only do we have more adults in our total population today; we have more who may be referred to as senior citizens. During the first half of this century, according to census figures, the proportion of the population 65 years of age and over nearly doubled. The U.S. Department of Commerce, Bureau of Labor Statistics estimates that by 1969, 15.7 percent of our population will be 65 years and over, compared to 12.3 percent in 1950 and only 9.0 percent in 1940. This is an increase of 75 percent from 1940 to 1960.[12] It is not these numbers alone that are significant. The advances of medical technology and modern comforts have helped to improve the health and physical condition of the elder populace. They are much more able to work, not only for wages but also around the home, than were the "retired" persons of two generations ago. In fact, in April, 1954, over 23 percent of those over 65 were working, of whom over 27 percent were farming.[13] Many can become or remain self-employed and capable of engaging in useful employment for several years after they have been "retired." For example, New Hampshire has a club called the League of Arts and Crafts, enrolling 3,750 members who create jewelry, pottery, weaving, etchings, metalwork, furniture, and other things. Grand Rapids, Michigan, annually holds a Senior Skill Show, with over 100 senior citizens participating, viewed by several thousand people over a two-week period. Most elder citizens would be happier if working. Furthermore, many of them need the income. The sudden reduction in family income suggests educational needs related to the necessary adjustment which naturally must follow.

In the last decade there has been an awakening of interest in retraining older people. Some of the present effort is directed toward finding suitable types of jobs for aging persons—jobs that they could learn in a short time. The need for instruction of the homemakers of this age also is important. In the face of abruptly reduced income, help is needed in budgeting, in planning of meals, and in cutting the costs of the household. All older adults need help in developing or pursuing hobbies, in finding wholesome recreational outlets, and in making their homes more attractive and suitable for family living.

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[12] *Manpower Resources for National Security*, Office of Defense Mobilization, Washington, D.C., U.S. Government Printing Office, January 6, 1954, p. 49.

[13] *Road Maps of Industry*, No. 961, New York, The Conference Board, May 28, 1954.

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Chapter 20

MEETING THE NEEDS OF DIFFERENT GROUPS OF ADULTS THROUGH SYSTEMATIC INSTRUCTION

The people of a community, and particularly those engaged in the work of the world, are usually more sensitive to the job-training needs of adults at work or soon to go to work than most educators appear to believe. When those responsible for school programs for out-of-school youth and adults have decided to meet these needs, their first step is to study the special needs of different groups in each occupational field. It will be impossible in this chapter to detail these needs for all groups. They will vary greatly from one community to another. Some occupations may be represented only by small numbers. But it is essential for school people to realize that there are important differences among these groups. In this chapter some of the characteristics and needs will be pointed out, together with suggestions as to appropriate types of systematic instruction that could be made available in the community school. We will first consider persons out of school and in the process of becoming established, including young farmers, young homemakers, apprentices, and others. Following this, attention will turn to instruction for established adult workers.

Young Men on Farms

Experience with systematic instruction for farmers has shown that there is a decided advantage in providing courses for young farmers separate from established, operating farmers. This is partly because of their desire to associate with persons of their own age and socioeconomic status and to be somewhat independent of their elders. But it is also due to the fact that many of their vocational and social problems are unique. This is not to imply that out-of-school young men on farms are a homogeneous group. They constitute, on the contrary, a very heterogeneous group. Partly because of the fact that there are usually more young men living on farms than the number who can become established in farming, many are faced with the problem of vocational choice and placement. Those young men living on farms but not established in any occupation are obviously in need of guidance.

While it is true that many young men with farm experience must look to a non-farming vocation, they should be helped to explore the possibility of entering one which is related to farming and which will permit them to capitalize on their farm experience. It has been estimated that the number of persons engaged in occupations related to farming is about equal to those in production agriculture. Related occupations include those involving custom work for farmers; sales and service for farmers; buying from farmers; processing and distributing farm products; specialized work with plants or animals; professional agricultural work; and work in teaching, research or regulation in agriculture. Since the typical out-of-school farm youth will have attended a small high school that usually has less to offer in guidance services, he will appreciate help with his vocational plans.

Along with the problems of choosing and preparing for an occupation is that of placement in it. The young man trying to get established in farming is particularly in need of help. If he does not have an opportunity to become an operator on the home farm, he will need assistance in finding a farm to buy or rent. If the opportunity for expansion in the home-farm business is limited he will need to find additional land to rent. The attainment of the goal of full-time operatorship today involves getting control of from forty to fifty thousand dollars, represented in livestock, equipment, capital, and sometimes land. One way of approximating this requirement is for the young man to form a partnership with his father. This is not an easy status to achieve. Much help needs to be given to both father and son to work out an agreement that will be profitable, legal, and productive.

Studies show that the desire to earn more money ranks very high with out-of-school youth. Many of these young men are not ready for a partnership. They will need help in planning and conducting profitable enterprises and in saving and investing money in farming. Young men who are unable to develop enterprises on their home farms may need help in finding land to rent or a farm on which to work as an employee. The objective of instruction and guidance of these out-of-school farm youth is to help them to advance from their present farming status to successively higher statuses, and ultimately to reach that of farm operators in their own right.

Surveys of out-of-school youth on farms indicate that we could expect fully half of them to be interested in meeting in groups for systematic instruction and for individual on-farm instruction on problems growing out of this objective. As might be anticipated from a look at the problems of establishment detailed above, young farmers want help in planning the business, in leasing, in budgeting, in record keeping and analysis, and in many other aspects generally classified under the broad title of farm management. Also very high on their list of interests is the need for improving their mechanical ability. Courses in farm mechanics have ranked high in frequency of request by these groups. Such courses might include farm welding, operation and maintenance of machinery, remodeling and construction of buildings, uses of electricity, and developing and using labor-saving devices. As they advance in farming young farmers commonly seek help on new problems of livestock and crop production, marketing, soil conservation, and home improvement. There is a trend toward extending systematic instruction for young farmers throughout the year to adapt instruction to seasonal needs.

Young men on farms who have left school are no longer members of school clubs or extra-curricular activities. They have not yet found their places in adult farm organizations, although they may be members of them. So there is frequently a desire to form some kind of local organization for the purpose of planning and engaging in group social and recreational activities. They are conscious of the need for personal improvement, and for opportunities to discuss problems of marriage and home and family living. The general educational needs of young men on farms should not be overlooked. They typically have had fewer years of schooling than urban youth. The 1950 census shows a median of a little over nine years for farm youth 18–24 years of age, as compared to nearly 12 years for urban youth of the same age. Furthermore, in spite of the increased holding power of the school, the 1950 census shows 240,330 or 12.7 percent of the farm youth from 14 to 17 years of age who were not enrolled in school. Some provisions should be made for supplementing specific farmer training with instruction of a more general nature. A list of major concerns or problems of young farmers has been suggested by Nichols as follows:

Becoming happily married
Getting successfully anchored to the soil
Improving the farm
Establishing a favorable credit rating
Obtaining wholesome recreation
Acquiring the "skill and know how" of farming operations
Knowing how to cooperate
Understanding the world about us
Obtaining satisfaction from community service
Maintaining the respect of others [1]

Young Homemakers

Some of these problem areas are also of concern to young women out of school. Preparing for marriage and preparing to establish homes are important to both young men and women. Following marriage a whole host of problems come crowding in almost simultaneously. There are interests in the family budget; the food budget; meal planning; selection, care and management of a home; pre-natal care; child care and training; and informal entertaining. Later on, young wives also show a great deal of concern for care and repair of household equipment; growth and preservation of fruits and vegetables (where land and time are available); clothing construction; and home decoration. Whether unmarried or married, many a young woman wonders whether to take a job; whether to continue at a job she already has; and, if she is working, how to take care of all the activities of a homemaker in the limited time available.

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[1] Mark Nichols, *Young Farmers: Their Problems, Activities, and Educational Program*, Danville, Ill., The Interstate Printers and Publishers, 1951. Chap. III.

Since many of the problems just listed are common to both young men on farms and young women, it is logical and feasible in rural areas to provide a number of activities in which both sexes will participate. Experience has shown that young married farm couples will meet together for profitable study and discussion of problems both in the areas of farming and of homemaking. Such joint activities might also provide opportunities for dealing with other areas of concern of a social, civic, recreational, and economic nature. Bender has developed and demonstrated the use of a check list for studying the problems of out-of-school rural youth. The instrument is applicable to both young men and women.[2] It should be helpful in planning programs for both groups. Up to now, the schools have been less concerned with providing educational programs for these two groups than either for high school youth in agriculture or homemaking or for adult homemakers and farmers.

School Drop-Outs

In an earlier chapter the problem of pupils dropping out of the secondary school was analyzed to call attention to the responsibility of the school to increase its holding power. School people should, however, do more than concentrate on keeping pupils in school. They should, to be sure, be concerned with the potential school leaver and

[2] Ralph Bender, "The Development of a Problem Check List and a Demonstration of Its Use in Planning Rural Youth Programs," *The Agricultural Education Magazine*, 20: 116–17, Dec., 1947.

with helping him to find worth-while educational activities, some of which may be vocational in character. But of equal concern to the school are the educational needs of the drop-out, once he has left the school as a full-time enrollee. Since the young person has not completed training of an occupational nature offered by the school he is apt to find employment in work that would not challenge his potential ability. He is interested in bettering his employment status. Here is where the school should step in to help him, by providing part-time instruction for the youth who may be able to spend a limited amount of time in school, who may be an apprentice, or who may be trying to establish himself as a farmer, or herself in a home of her own.

Without question, out-of-school youth have been neglected by the public schools of our nation. Whether they are young farmers, young homemakers, school drop-outs, beginning workers in business or industry, or other young persons of apprenticeable age wanting to get a start in life, this neglect as compared with high school youth and older adults is universal. The community school must be concerned with these groups if it is adequately to serve the community.

Apprentices

For purposes of training, an *apprentice* has been defined by the Federal Committee on Apprenticeship as "a person at least 16 years of age who is covered by a written agreement registered with a State Apprenticeship Council, providing for not less than 4,000 hours of reasonably continuous employment for such persons, and for his participation in an approved schedule of work experience through employment, which should be supplemented by 144 hours per year of related classroom instruction." Although an older person may become an apprentice, the typical one will be a young person who has recently graduated from high school. He might or might not have had some vocational training before leaving school. If he has, it might have been general in nature, or at least specifically related to the job on which he is employed as an apprentice.

The trade or occupation that an apprentice is learning usually will be one of the 300 apprenticeable occupations that are recognized by the Bureau of Apprenticeship. Furthermore, the apprentice will be under the jurisdiction of a local joint apprenticeship committee with representation from employers, employees, and the school. As indicated, the minimum time to be employed under these arrangements will be 4,000 hours, or two years, the actual amount of time depending upon the trade and local or state requirements. The standard length of apprenticeship will vary among the occupations from two to eight years with most between three and five years. The apprentice differs from the student on a cooperative work-experience program in that he is usually older, is employed full time, and receives a minimum of 144 hours of systematic instruction each year.

The vocational training needs of apprentices break down roughly into two categories. First, there is the specific instruction and practice in skills required of an employee in his regular activities on the job. This will be provided by the employer or by a supervisor or foreman placed in charge of the apprentice by his employer. The second need is for related instruction. This is sometimes provided by big companies employing large numbers of apprentices who can be taught in classes. However, more commonly this related instruction can be given in the community school by carefully selected teachers who are experienced in the trade. Some examples will be given to indicate the nature of related instruction.

In the carpentry trade there may be a need for teaching the reading of blueprints, use of the steel square, and applied mathematics. In the case of plumbing and electrical apprentices they also will need instruction on related theory and code requirements. Welding might be an auxiliary skill needed by some apprentices. Other related instruction might be provided in the use of trade terms, materials of the trade, and employer-employee relations. Apprentices need counseling in personal relationships on the job. Studies of problems of employed persons show that inability to get along with fellow workers and employer is the most commonly reported cause of discharge. The schools could aid greatly in alleviating or preventing the occurrence of this problem through group discussions and counseling aimed at helping the beginning worker to get along with people.

Another kind of related instruction that the apprentice might need and which the local school often can provide is in special phases of the craft in which the apprentice does not have an opportunity to work as an employee. An example is the training of apprentice bricklayers in special construction that might not be encountered on most jobs but that the journeyman should have. Another example might be special instruction in art work for the apprentice painter.

Other Employed Workers in Business and Industry

Men and women employed in business or industry have shown interest in at least five major areas of learning related to their jobs. These are: (1) increasing skill in the job, (2) preparing for a new job or occupation, (3) preparing for a supervisory or managerial job, (4) improving managerial or supervisory ability, and (5) getting along with people with whom they work.

Increasing skill in the job might involve learning how to operate a new machine, how to service or repair it, or how to maintain or operate it in making a new product. The saving of time through more efficient operations is also a part of this need. Often times the additional skill would be one that is subsidiary to the main activity of the worker. Or it might involve adoption of new or better safety practices or of practices of sanitation. For example, instruction in Seattle was provided in sanitation for 24,000 food handlers. These persons included restaurant workers, meat and meat products workers, dairy and milk products workers, bakery workers, and miscellaneous workers in food stores in warehouses, and in transportation of food.[3] A comparable example is that of organized instruction in effective speech, merchandising, and salesmanship that was successfully given to store salesmen in the state of Vermont.[4]

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[3] Kenneth R. Williams, "Sanitation Training for Food Handlers," *American Vocational Journal*, 26: 21, Dec., 1951.

[4] John M. Morrow, "Vermont Promotes D E For Adults," *American Vocational Journal*, 27: 9–10, April, 1952.

The need on the part of an adult for preparation for a new job or occupation may arise from any of several possible circumstances: the job on which the person is employed is obsolescent; the activities involved in the job will eventually be performed by machines or by semi-skilled persons operating machines; the person finds he is not interested in the job; he finds the job does not make use of his capacities or aptitudes; the job is not as remunerative as one which he could take if qualified; or there is little possibility of promotion in the job. Courses for adult workers to meet these needs should be specific, and directed toward the development of skills needed in the new occupation. They will ordinarily be desired in the evening, and as short unit courses of several weeks' duration.

In most industrial and business employment the employee's wages or salary and his status could be improved through promotion to a supervisory or managerial status. Or, in some cases persons working for others might want to start a business or industry of their own. They would then find themselves in a supervisory or managerial position. Schools located in communities where sufficient numbers of foremen, supervisors, or department heads are employed could offer courses for persons who wish to qualify for such positions. Such instruction should be planned and conducted in cooperation with employers.

In many respects such training will be more effective when given to persons who already are in such supervisory or managerial positions. They will then be more nearly aware of the specific competencies which they must master and the kinds of problems likely to be met, as well as of the knowledge required for handling the problems. Likewise, the instruction given could more quickly be put to use.

As pointed out in regard to apprentice training, the ability to get along with people on the job is often a determining factor in the success of the worker. This problem of dealing with inter-personal relationships suggests that instruction beyond specific training in job skills should be offered. Some groups of adults would benefit from instruction in applied psychology, discussion leadership, and group dynamics. Techniques of working with people could also very well be dealt with in specific job training courses for all of the four groups previously described.

Public Service Employees

As brought out in another chapter, the proportion of the labor force engaged in service occupations has steadily increased. Many of those represented are employed by the public, rather than by private enterprise. It may be helpful here to identify a few groups, particularly those requiring pre-employment or in-service vocational training. Included are firemen employed by municipalities. Closely related to their work is police work. While many of the workers in public institutions must have professional education in college or university, we also find practical nurses, power plant workers, employees in custodial work in public buildings, water and sewage plant workers, school bus drivers, and inspectors of food and other commodities for human consumption, all of whom need specific training for improving their effectiveness at the job.

In the case of most of these workers, no pre-employment training could be given because there is no guarantee that the person being trained would be employed in a particular job in public service. An example of an exception to this is that of practical nursing, for which there is currently a shortage of trained persons. But in the main, as new workers in these jobs are employed in larger cities, they are brought together for group and individual instruction, through cooperation of the schools and the public agency employing them. This type of training could not be provided in the smaller community but could be provided in area schools and community colleges. There is constant change in complexity and magnitude of the functions of workers in these fields, and there are many specialized training needs. For some of these occupations courses and units have been offered for a number of years and have been pretty well defined. For others, the courses must be set up through cooperative planning.

Operating Farmers

The vocational needs of operating farmers include attention to some of the problems mentioned in connection with young farmers. These men are looking for help in improving their farming business in any way that will result in more profit. They have therefore typically expressed a desire for assistance in solving the over-all problems of management and in improving their ability to plan their farm business. Because of the rapid developments in agricultural research, adult farmers are constantly seeking new information and new or better practices in production, marketing, soil conservation, or operation, care and repair of machinery and equipment. Although the individual farmer can not greatly influence the trends in supply and demand of farm commodities and farm prices, he is usually interested in the farm price outlook, in gaining a better understanding of factors affecting price and market demands, and in finding ways of adjusting to them.

Farmers have traditionally relied on past experience as a guide in selecting courses of action and farming practices to follow. Some studies show that farmers' neighbors or other farmers are a greater factor in their adoption of approved practices than any other persons or agencies. But not all farmers' experiences can be relied upon, nor are the practices that might be observed by a given farmer in a given year certain to be representative or typical. All farmers are in need of assistance in evaluating each other's experiences, in understanding the importance and meaning of scientific experimentation in agriculture, and in recognizing and dealing with biases, prejudices, and superstitions. Short unit courses on subjects such as soils, dairy, farm management, and livestock feeding are common offerings.

Few courses have been organized specifically for employees on farms, although instruction was provided under Public Law 346 for veterans of World War II employed on farms. The farm operator ordinarily assigns the farm employee to jobs in which he has had experience and then himself performs or hires done those jobs which he can not entrust to the hired hand. However, such employed persons should be considered in any program of adult-farmer education. They need instruction on many farm operations, particularly of a mechanical nature as mechanization increases. Furthermore, many of them are looking forward to becoming farm operators and are interested in some managerial problems. There will usually not be sufficient numbers for nor interest in separate courses for farm employees as such. These men will usually attend classes for operating farmers.

The training of part-time farmers poses a special problem. Many of these persons are employed full time, at least seasonally if not the year around, in some business or industry. They have moved onto a small tract of land with their family to enjoy some of the benefits of rural life. They may have had little experience in farming, will typically have few pieces of equipment with which to work the land, and little or no livestock. Their expressed needs, according to studies made, show an interest in maintaining animal and plant health, soil and water conservation, cultural practices for crops, gardening, poultry production, and food production and preservation.[5] Unit courses on these subjects could be expected to result in a ready response. It is usually difficult to find suitable times for class meetings because of some persons working night shifts in factories.

Foremen and Supervisors

We have said earlier in this chapter that in-service training of newly appointed foremen and supervisors could be very effective because such persons are ready for such instruction. One of the first questions to arise is that of the responsibilities of persons in such positions. Some responsibilities will have been specified by the employer; however, others might be brought to light through foreman conferences that could be set up for that purpose.

[5] H. Paul Sweany, *Some Educational Needs of Families Engaged in Part-Time Farming*, Research Bulletin No. 3, East Lansing, Mich., Michigan State College Press, 1951.

The foreman or supervisor is in an instructional position in that he often must teach a new employee some operation or teach an employee some new aspect of an operation. Training in work simplification or job methods is typically a responsibility of the foreman or supervisor. A well-selected teacher experienced in industry who has had professional preparation could help to train the foremen for this responsibility by helping them with the planning of instruction and with methods of on-the-job teaching. Much of the training of supervisory personnel will be given through conference procedure, which utilizes the experience of the group and helps members to develop the ability to analyze a problem and work out a solution to it.

Much of the training of workers in business and industry in the areas of safety and employer-employee relations will be handled by the person in a supervisory position. Organized instruction for such persons could provide content for instruction as well as suggestions for using the content in training workers. The foreman or supervisor must be concerned with the personal satisfaction of the worker on the job and his relations with management and his fellow-workers. Through training, foremen could be greatly aided in effectively performing such a function. Courses meeting these needs must be worked out cooperatively with employers.

Adult Homemakers

In the preceding chapter it was pointed out that among courses offered by the public schools for adults those offered in the area of homemaking have been very popular. This is true in spite of the fact that a sizable instructional program, also with sizable enrollments over the past quarter century, has been carried out for women by the Cooperative Extension Service through the use of lay leaders trained by specialists in home economics. But these enrollments still represent only a fraction of the total number of homemakers. In Chapter 15 the major areas of subject matter in homemaking were listed. The problem areas of a sample of adult homemakers have been identified by Lyle as the result of interviews with homemakers in one community. Worded the way the problems were presented to the investigator, these statements provide a clue to the things that are bothering many women in homes.

Placed under the heading of "finance" were statements most frequently made like "Income so low, very hard to meet needs," followed by "Income so irregular, hard to manage." Under family relations the most common problem brought up was "Children hard to guide and manage." "Meal planning tiresome and monotonous" was the most common complaint classified under food. "Homemaker's own health poor" was indicated most frequently under the area of health. The three problems in order of frequency of mention under house care and furnishings were "Poor health makes house care burdensome"; "Too much to do, can't keep house in order"; and "Old house, hard to care for." The more common problems of personal and social living were: "Neighbors unfriendly or snobbish"; and "Eyes trouble so they restrict activity." [6]

Most of the problems listed earlier in this chapter for young homemakers would apply here, but with different emphasis. The average adult homemaker probably does not sharply distinguish between problems encountered as the responsible person in developing and improving the home and home living of her family and herself on the one hand, from problems on the other hand encountered in all aspects of her life. However, in order to become more aware of the homemaker's needs and the possibilities of adult instruction in this area, it may be helpful to examine a statement of suggested objectives of adult homemaking education prepared by Williamson and Lyle:

1. To help adults clarify what their problems of home living are.
2. To help the adults find ways to solve their problems satisfactorily.
3. To stimulate adults to keep on learning as new knowledge is uncovered in fields that will help them to meet their home problems intelligently.
4. To stimulate adults to re-think their beliefs and re-examine their

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[6] Mary S. Lyle, *Adult Education for Democracy in Family Life*, Ames, Iowa, The Iowa State College Press, 1944, pp. 112–13.

ideas of those things in family life that they think are important for their families.

5. To stimulate them to find satisfying means of achieving for themselves or their children the goals they cherish most.

6. To help adults find satisfying outlets for self-expression in homemaking activities.[7]

When women are asked to indicate the kinds of courses they want, however, many of these objectives are not represented in their requests. The most common request is for some type of course in clothing. This is exemplified by Franklin, who had an advisory board in Savannah, Georgia, for the purpose of selecting instructional areas for courses for adults, and who reported on the wants expressed by this committee. Their number one want was clothing, followed by planning meals, buying groceries, and feeding the family adequately. The third most important expressed want involved work with kitchen equipment, followed by renovation of furniture.[8]

The apparent gap between what homemakers say they want instruction in, and the manifestly broader problems that are deep-seated and fundamental in developing wholesome family life has been of concern to professional leadership in homemaking for some time. The difference is in part explained by the personal and sometimes intimate nature of the fundamental family living problems which adult homemakers are unwilling to reveal in group discussions and conferences. It might also be due to the homemaker's failure to realize that such topics could be dealt with in courses. Another fact that undoubtedly has a bearing on this discrepancy is the shortage of qualified teachers and the proportion of them who have had relatively limited experience as a full-time homemaker. The lack of extended experience of teachers of homemaking may deter the adults from suggesting that fundamental problems of child and youth training, as well as those of family relations be dealt with. A national committee has recommended that courses be provided adult homemakers

[7] Maude Williamson and Mary S. Lyle, *Homemaking Education in the High School*, New York, Appleton-Century-Crofts, Inc., Third Edition 1954, p. 348.

[8] Hazel Franklin, "Here's What We Do in Adult Homemaking," *Practical Home Economics*, 29: 121, 146, Mar., 1951.

in the following areas: family finance and consumer buying; housing and home improvement; child development and human relationships; management of time and energy; clothing and textiles; foods and nutrition; recreation and leisure time; and health, safety, and care of the sick.[9]

Many courses chosen by homemakers would ordinarily be thought of as falling in the category of the practical arts, such as knitting, linoleum printing, gift wrapping, and textile painting. The desire for these practical arts courses related to homemaking suggests the need for more extended treatment of this important area of adult education.

Courses in the Practical Arts for Adults

The interests that adults have in working with materials was emphasized in the preceding chapter. They have a desire to beautify their home surroundings and to develop hobbies to occupy their leisure time, which for most people has been steadily increasing regardless of their occupation. But there also is a strong desire to exercise their initiative in something other than their regular work and to respond to a creative urge. The demand for instruction for all types of the practical arts is evident from surveys conducted as well as from the actual offerings of adult courses by the public schools. For example, a survey of 800 adults in a small community revealed interests justifying recommendations of courses in driver training, family living, woodwork, general metalwork, graphic arts, home landscaping, and personal photography.[10] The shops and laboratories ordinarily used for vocational courses, as well as those particularly designed and equipped for practical arts courses, could be used. Many communities now are making use of these facilities during hours when regular secondary school classes are not in session, and doing so on nearly a year-round basis. The offerings in this area appear to be growing in demand. They soon may constitute the largest area of adult education in the schools. In almost every community persons can be found who possess skills related to their hobbies or their work. It has been demonstrated in most communities that, with encouragement and assistance in instructional planning by capable school leaders, these adults can become very effective teachers of the practical arts for other adults. The names of courses offered in comprehensive school programs of adult education around the country provide a clue to the possibilities and may be suggestive to those who are responsible for developing this phase of the program of the community school.

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[9] American Vocational Association, *Home Economics Education for Out-of-School Youth and Adults*, Washington, D.C., The Association, 1954.

[10] John A. Mack, "Adults Want to Learn," *The Agricultural Education Magazine*, 24: 10–11, July, 1951.

The practical arts of agriculture have included such popular courses for adults as home gardening, flower growing, flower arrangement, landscaping the home grounds, and the care of home poultry flocks. The movement of families toward country areas for living where homes are built on small acreages is spreading in many parts of the country. Growing out of this movement is the increased use of power equipment for lawns and care of home grounds and garden. Courses in selection, operation, and maintenance of this equipment would probably be welcomed.

Courses for adults in the practical arts of business have been in demand for some time. They would include offerings such as typewriting for personal use, personal and family accounting, income tax, business law for the layman, and related courses.

In addition to the many homemaking courses generally designed to increase the efficiency of the homemaker and discussed earlier in this chapter, many other courses have been offered. These include such subjects as cake decorating, beadcraft, knitting, lampshade making, hooked rugs, crocheting, embroidery, Christmas crafts, china painting, textile painting, and gift wrapping, as well as other courses for personal use such as millinery, tailoring, fur remodeling, and related courses.

Of all the practical arts the area of industrial arts probably presents the greatest range of possibilities. Actual offerings in adult programs reveal many interesting courses that should appeal to most adults, regardless of their occupation or background. Following is a list of some of these kinds of offerings: adult driver training, amateur radio, art metalwork, automobile maintenance and repair, building a home, ceramics, chair caning, hide carving, furniture refinishing, furniture upholstering, household mechanics, jewelry making and enameling, painting and decorating, leather craft, photography, picture framing, plastics, radio repair, woodworking, and wrought iron and tubular furniture. The possibilities in courses of this type appear to be almost unlimited. Certainly, as the "do-it-yourself" movement spreads, and as better tools and materials for hobby and personal use become available, adults can be expected to manifest a greatly increased interest in helping to select, plan, and teach courses in the practical arts and to participate in them.

Courses for the Aging

What we have said regarding practical arts for adults in general applies equally well, if not better, to the aging, since they have more free time. While it is true that there would be some limitations to what they could do because of lessened physical vigor and muscular coordination, these men and women will respond very well to courses based upon their interests. They should have an opportunity to develop new hobbies and to pursue others that they have dropped because of lack of tools, equipment, or materials or because of need for instruction or other help. Some of them will enjoy working at materials with others of their own age group rather than working alone. Many could, no doubt, make use of school facilities during the day time. The psychological and sociological effect of a well-planned program in the practical arts for the aging could, indeed, be far reaching.

Of course, the solution of some of the problems of the older adults involves training in vocational skills, in spite of the fact that they have "retired." So some courses could be provided that would be designed to help them prepare for an occupation suitable for an older person, since many of them are capable of engaging in useful employment for several years after they have been retired. They are physically in good condition and will be happier if working. Furthermore, many of them need the income. Help is needed in budgeting and in planning of meals, as well as in recreational and working activities of older couples.

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PART VII

Improvement of Instruction

Chapter 21

PROBLEMS IN THE IMPROVEMENT OF INSTRUCTION

The improvement of instruction in courses in the several areas of vocational education and the practical arts should be a major concern of all school people. Instructional activities also are susceptible of close scrutiny by the people of the community because of their carry over to working situations, to the farm, or to the home. Many citizens will have had a part in planning the programs and courses. In some instances, they may have served as assistant teachers or resource persons, as described in Chapter 2.

Persons charged with general supervisory responsibilities in the schools have not always accepted this responsibility in regard to vocational education and practical arts. They have sometimes withdrawn from the supervisory role, or have favored turning over improvement of instruction in these areas to special supervisors or itinerant teacher-educators operating at the state level. The local supervisor or administrator may feel that instruction in vocational education and practical arts is so specialized that he cannot be of much help to the teacher. He may have some grounds for such a belief because he typically has not, himself, taken such courses as a former student in the secondary school or as a student preparing for school work. It is the purpose of this chapter to set forth the characteristics of good instruction in vocational education and practical arts, together with some of the problems involved in bringing about improvement in instruction.

Course Planning in Relation to the Needs of the Occupation

One of the ways in which teaching of marketable skills can be made more effective is through analysis of the needs of the occupation. This is imperative when a new course is started. It is necessary if the course is to be kept abreast of changes in the job requiring new abilities and resulting in disuse or lessened importance of other skills. Each occupation has its own body of knowledge which may have very little resemblance to knowledge required in most other occupations. A recent bulletin on training in trades and industries suggests that an analysis should reveal answers to the following questions:

1. What does the workman *do* in the practice of his occupation?
2. What does the workman *need to know* in order to practice his occupation?
3. How should the workman *act* in his relations with his fellow workers? and his supervisors?
4. What particular *knowledge* and attitudes should the workman possess concerning his occupation and the industry in which he works or is expected to work?[1]

Instruction in business subjects should be based on a similar analysis of employed workers in business occupations. The occupation of the farmer or of the homemaker can be broken down into general and specific abilities needed for success in those occupations.

Employers and some of their employees will be of considerable help in this course planning to be done through analysis of the needs of the occupation. They will usually be glad to help school people and will be able to give much information to supplement the analyst's observations. Use should also be made of analyses of occupations that have already been made by others and may be available from them.

Parents of students in the secondary school can be a great deal of help in giving suggestions on course content in such areas as agriculture and homemaking. They are aware of certain abilities already possessed by their boys and girls. They know the kinds of jobs they would like their boys and girls to be able to do at home or on the farm. Regular contacts with workers in the community constitute a very effective method for keeping instruction vital and current. These contacts would include, of course, those with organizations in trade, farm, and business associations. As previously mentioned, one of the difficult tasks in vocational education is that of keeping instruction abreast of new developments. It is possible for vocational courses to get out of date more quickly than courses in mathematics or languages. Instructors of vocational education and practical arts are in need of much help from specialists to incorporate new subject matter as new technical knowledge is developed or involved in the occupation.

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[1] *The Operation of a Local Program of Trade and Industrial Education*, U.S. Department of Health, Education and Welfare, Office of Education, Voc. Div. Bul. No. 250, Washington, D.C., U.S. Government Printing Office, 1953, p. 44.

Effective instruction in this area should develop some basic understandings and not just provide a "bag of tricks." These basic understandings include principles of science applied to the job operations to be learned. A youth or an adult must gain an understanding of these applied principles so he can more readily change his methods or practices as the job changes, and so he can learn new skills.

Student-Teacher Cooperative Planning

Before any new vocational ability or ability in a practical arts area is studied by a student, he must have a "feeling of need" for it. This means that he must realize that he does not now possess the ability and what it might mean to him and to others if he could master it. This implies that the student must have a part in deciding what is to be learned.

This participation in deciding what is to be included in the courses and units of instruction is particularly important and feasible in the practical arts and in vocational agriculture and homemaking. Students in these courses have an experiencial background for helping to determine content. It may also be true of students on a cooperative work-experience program.

In planning instruction in the practical arts, creative activity of the learner should be stressed. It will be necessary to inventory the interests and experiences of pupils in the classes, and to encourage them to select and plan new experiences and projects in connection with which they can have opportunity to exercise initiative and to try out their own ideas.

The amount of cooperative planning that can be expected of students preparing for business or industry will depend a great deal on the experiences they have had. In most cases students will have only limited experience in these occupational fields and therefore will not be in a position to decide whether a given skill should be learned. But they should be taught to understand the importance of it in the occupation.

The vocational teacher must be skillful in meeting and working with parents and their sons and daughters as well as with employers. Visitation on the job, in the home, or on the farm is essential for student-teacher cooperative planning of instruction in these areas. Some of this planning should take place with the student and employer on the job, and in other cases in the home. Opportunity should be available for conferences between the student and teacher or coordinator during the school day. Much cooperative planning can be done by the class as a whole. This might involve decisions regarding larger blocks or units in the course. The planning could include selection of home or farm projects, learning activities, or experiences. Also involved might be the selection or setting of goals of accomplishment and ways of determining how nearly these goals have been reached.

Demonstration and Practice of Vocational Abilities and Skills

Among the abilities to be developed in any occupation, those of a manipulative nature are important. There is very little scientific evidence as to the relative effectiveness of different methods for teaching manipulative abilities. However, practitioners pretty generally use a plan of teacher demonstration followed by supervised practice by the students. In preparing to give the demonstration, a teacher will typically prepare an operation breakdown. This usually consists of a list of steps essential in performing the operation, accompanied by concise statements of information. These statements are sometimes referred to as key points, since they may help to make the step easier to do, may save time, may protect the worker, or may be essential to the performance of the operation. In giving the demonstration the instructor should develop interest of the student in the operation to be learned. As he then shows the students how to perform the operation one step at a time he will bring out the key points to be kept in mind for each step. The students should be asked to perform the steps and to explain the key points in order to test for understanding. The amount of subsequent additional practice to be required depends upon the nature of the operation and the degree of proficiency desired at this level.

The supervision of students practicing new manipulative skill in laboratory or shop presents an opportunity for the instructor to work with the students so that the steps in the operation will be correctly followed. It must be borne in mind that the objective of the teaching is not to have the operation performed, although the finishing of the operation may be a means of evaluating the learning. Rather, the objective should be that of correcting errors and of making actions habitual. The instructor should give individual instruction during the practice period. This implies examination of the work and progress of each student and questioning him to determine if he understands what he is doing and why he is doing it in a particular way.

There are differences of opinion regarding the relative amount of time necessary and differences in practice as to the time for demonstration and student practice. Some teachers prefer a relatively long demonstration. Others prefer a short demonstration with considerable individual instruction. There is, however, general agreement that courses in which manipulative skills are to be developed should have relatively long periods within a school day for practice. There is need for considerable research on the time factor in learning manipulative skills. The differences among individuals, the minimum and optimum lengths of time for acquiring certain skills, and similar information should be uncovered.

Developing Abilities in Problem Solving

Many persons have the impression that acquisition of marketable abilities involves little or nothing more than manipulative skills. This is far from the truth. For example, in agriculture much of the success of the farmer depends upon his ability to make decisions in problematic situations. He must decide upon a rotation of crops, select a crop variety to plant, select breeding stock and feeds for his livestock, and make many other similar decisions every day. The homemaker is also faced with similar decisions in the management of the home, in the caring for children, and in strengthening family relationships. It is difficult to think of any occupation in which the worker is skilled and in which he does not frequently have problems to solve in relation to his work.

Managerial abilities depend upon the individual's ability to do good reflective thinking and his understanding of pertinent information bearing on decisions to be made. Their development also depends upon student experience with actual difficulties to be solved and opportunity to test the validity of these decisions, once they are made. Many managerial decisions that are faced by adults in the occupation will be only theoretical if presented to students in the secondary school. On the other hand, the farm boy who has a good farming program will have many decisions to make of a managerial nature. The student with enriched experiences and responsibilities in the home will also have problems to solve. The budding store salesman will have decisions to make for every customer he has, as well as decisions in regard to his own vocational plans.

The procedures in teaching which are calculated to develop problem-solving ability are pretty well known but not universally practiced. Such instruction starts with a problem or difficulty which has been recognized by one or more persons in the class and growing out of his or their own experience, including experience in connection with a group project. The problem is then called to the attention of the class and examined to determine its importance. Following this the teacher and the class identify the possible answers and ways in which it might be solved. This is followed by a study of the available information which will help them to support or reject the tentative solutions which have been suggested. The discussion which the teacher leads following this study is for the purposes of testing each suggested solution against the available information and of checking on the understanding which the class has of the evidence. Each student should be asked to state his final decision as to the solution of the problem and to support it with facts and reasons. It is at this point that decision-making ability can be further tested. The final step in this type of instruction is to have the student or students apply the solution of the problem to his farming program, to her home activities, or to some other work situation. Students will also meet problems which arise out of their own unique situations. These include difficulties encountered by the student of agriculture at home with his farming program, the student of homemaking in her home, the student learning a job while employed part time in industry or business. The teacher can develop problem-solving ability in students in these situations by helping them to work toward solutions to them in much the same way as they may have done on a group basis. The major difference is that more individual attention is given to the student and his decision, and it is often possible to implement a solution to a problem at once. In vocational education a great deal of emphasis should be placed on individual instruction.

Good teachers keep a record of the problems encountered by students in their work experience, home experience, or farming programs. These are written into the course of study and used again with the subsequent classes if they are encountered by the students. Decision-making ability can only be developed by having students practice making decisions and by correcting the thinking until it is good.

Developing Attitudes and Habits

It is becoming increasingly recognized by employers, parents, and schoolmen that attitudes and habits frequently are the factors which make or break a person in the occupation. But they cannot be developed in the abstract or in theory. Attitudes and habits can only be developed in direct application to actual experiences of the learner and worker. It follows that the teacher of vocational subjects should, after identifying the specific skills or abilities which the learner must acquire, also determine what attitudes, interests, ideals, and habits should be developed in connection with these.

Many of these attitudes and habits can be taught in part by precept or example. Thus, it is important in selecting a teacher to look for the person who exemplifies the traits needed in the worker and citizen. If the teacher is a good teacher, students will seek to emulate him. It is possible not only in the secondary schools but all through the elementary school to lay the foundation for desirable work attitudes and habits as was shown in greater detail in Chapters 10 and 11.

Students in vocational education and practical arts should be taught to set goals for themselves. These goals would be in terms of the amount of accomplishment, speed and efficiency, number of skills to be mastered, or degree of excellence in performing a skill or activity. While it is true that employers have standards of performance which must be met, it still is desirable for each learner to set goals for himself within the framework set up by the employer. Teacher and students can work together cooperatively to determine the goals toward which they should strive. Such goals should be realistic and based upon records of actual accomplishment. Thus, teacher and students should periodically evaluate learning and in the light of actual accomplishment should revise goals previously set.

Creativeness should be stimulated in all workers and prospective workers in business, industry, home, and farm. This means that pupils must be given a share in deciding what they are to do and how they will do it. Industrial arts and homemaking offer unusual opportunities for students to express their ideas in new designs. They should be given a relatively free hand in construction and design of projects. Encouragement should be given to originality and individuality of expression.

There are no subjects taught in the secondary school or in adult classes which offer greater opportunities than those in the areas of vocational education and the practical arts for development of desirable habits of safety, neatness, and orderliness. The place of safety education is treated at greater length in a later chapter. Good housekeeping should be expected of all students and instructors who work and study in shops, laboratories, and work rooms. There is a very close relationship between good housekeeping and morale of the classes, as well as to good workmanship and respect for it.

Teaching Related Technical Knowledge

In speaking of persons who are proficient in an occupation, reference frequently is made to their "know how." As typically used, this term implies not mere knowledge as to how to do a job but actual ability to perform it in a skillful manner. But it is not enough to know *how*. Effective workers must also possess the know *why*. They should understand the basic principles underlying the practices they put into effect and their application to the steps they follow in performing an operation.

For example, the girl being instructed by her employer in selling yard goods in a dry goods store will be told and shown how to make a sale and will be given minimum information about the fabrics. However, the girl will become a skilled sales person only after she can identify many fabrics, is informed on basic principles such as shrinkage, fastness of colors, washability, adaptability to patterns, and other related information. The farmer may have his soil tested for pH and may spread ground limestone in sufficient amounts to correct the "acidity." However, it is very important that he understand the chemical changes which take place in the soil as a result of application of limestone and the effect of these changes upon availability of other plant-food elements and the growth of common crops. Likewise, the student in industrial arts designing a bookcase is interested not just in producing a plan that will work—i.e., will result in pieces of material that will fit together. He will make beautiful designs only as he understands principles of art as they apply to such a design.

The homemaking student will not ordinarily receive instruction in related information at home, nor the student of agriculture from his father. The employer of small numbers of students on a cooperative training program or of a full-time employee will not or cannot ordinarily take the time to teach the worker much of this type of information. The teacher or the coordinator in the school must teach related technical knowledge to the student which is essential in the occupation. If the coordinator does not possess this information he must find it in books, periodicals, manuals, visual aids, or in other persons who can assist him. He may need to organize and write such materials himself.

The task of selecting from the great mass of technical information that which should be taught to the worker or prospective worker is indeed difficult. Several questions will need to be answered in making these selections. Will the understanding of this information increase the ability of the person? Will it help him to do a job more easily or more rapidly? Will this understanding help him to enjoy the work more? Should this information be taught now, or postponed until a time which is psychologically better?

In teaching understandings the relation of information to the actual performance in abilities being developed must be kept close. Students should at all times be able to see that there truly is a relationship to the job being studied and that it is, therefore, worth the effort required to master it. As pointed out earlier, the problem-solving method is one effective approach to this type of teaching, since it starts with an actual problem encountered in carrying out an activity, and the solution is carried into effect in this activity. Teachers who are responsible for related instruction need help in developing these understandings.

Teachers who have instructed adults with experience have found the conference procedure to be quite effective. While the solving of a problem is the focal point, the conference procedure differs from the problem-solving procedure typically used at the secondary level in that less dependence is placed upon use of such written materials as books and pamphlets. Furthermore, since the adults have had more experience, more use can be made of this experience by the conference leader. Conference procedure has been used very widely in teaching adult farmers in enterprise courses and in teaching adult homemakers, foremen, and store proprietors. It is also used in certain instructional units or courses cutting across several occupations, such as safety practices, salesmanship, sanitation, and employee-employer relations. Teachers can be helped through good supervision to become more proficient in the use of these methods.

Improvement of Instruction on the Job

Not everyone who is skilled at a job can impart that skill to others. He may not be able to show others, without doing it too fast or doing it in such a position that the learner cannot see. He may not be able to explain the key points of what he is doing and how he is doing it. Even more likely, he may not be able to explain how to perform an operation while at the same time he shows the learner how to do it. The supervisor of the student employed on a cooperative program, the mother of the homemaking student, and the father of a farm boy all can be helped to instruct students more effectively on the job, at home, or on the farm. This is a problem to which school people who are interested in improving vocational education should give a great deal of attention. They should confer with these parents and/or employers and cooperatively determine and discuss the goals of "on-the-job" learning and teaching.

If employers or parents are able to see clearly that the student's objective is to learn the job, even though their own primary objective is to get the job done, they have taken the first step toward giving effective on-the-job instruction. In their supervision of the student-worker they will give attention to what is happening to the learner, what he is getting from the work. Instead of saying "Do it this way," "You just can't do it," or "Find out for yourself," the supervisor or parents should say, "Why are you doing it this way?" "What would happen if you did it another way?" "What do you think was the cause of your trouble?" or "Try it again with these modifications and

I think you will succeed." They will patiently answer the student's sincere questions and willingly supply valuable information which will ultimately result in greater competency.

Evaluation of Instruction in Vocational and Practical Arts Courses

Evaluation is an important aspect of the improvement of vocational instruction. Evaluation is thought of by some as a process of determining the extent to which facilities, personnel, and activities come up to predetermined standards set by authorities or consensus. This approach to evaluation is largely a judgment as to adequacy of ways and means. An example of this approach to evaluation is the "Evaluative Criteria" for agricultural education developed and tried out by a national committee sponsored by the American Vocational Association in cooperation with the Vocational Division of the United States Office of Education.[2] This try-out involved the gathering of local community and school data and application of certain criteria to these data by "outside experts." It was recommended by the committee that these criteria be used by local teachers and administrators for self-evaluation. An instrument for evaluating a local program of trade and industrial education also has been prepared by another committee, but on a similar pattern.[3] Similar instruments have been developed for evaluating local programs of business education.[4]

In the area of homemaking Blackwell has developed a series of four check lists of practices relating to space and equipment, references and illustrative materials, curricula, and services contributed by the homemaking department.[5] As a result of the use of these check lists and other measures in a five-year evaluation study in Minnesota, Arny concluded that:

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[2] American Vocational Association, *Evaluative Criteria for Vocational Education in Agriculture*, National Committee on Standards for Vocational Education in Agriculture in Cooperation with U.S. Office of Education, Washington, D.C., The Association, 1942.

[3] Joint Committee on Evaluation Procedures in Trade and Industrial Education, S. Lewis Land, Chairman, *A Procedure for Evaluating a Local Program of Trade and Industrial Education*, Chicago, American Technical Society, 1952.

[4] Special Committee of the A.V.A. Distributive Education Division, *Evaluative Criteria for Distributive Vocational Education*, Washington, D.C., American Vocational Association, 1954, and *Evaluative Criteria for Business Departments of Secondary Schools*, Mono. 90, Chicago, South-Western Publishing Co., 1954.

> Schools and communities are stimulated to improve their homemaking program when they are furnished with objective evidence of what is considered to be desirable, and of the strengths and weaknesses of their own schools in relation to these standards.[6]

The Cooperative Study of Secondary-School Standards has published *Evaluative Criteria* which include those for programs of agriculture, business education, home economics, industrial arts, and industrial-vocational education. These instruments are much shorter than the three previously referred to and contain no helps in evaluating out-of-school programs. However, the check lists should aid somewhat in calling attention to key points in evaluation of these programs.[7] These and similar instruments previously referred to may be of some help in determining whether ways and means for vocational education in these fields measure up to those in similar programs in other communities.

All school programs, including those in vocational education and the practical arts, are constantly being evaluated by the people of the community whether we recognize it or not. They may or may not make a valid evaluation, but they are deciding whether the program is good or poor. Usually they will decide that the program is good or poor on the basis of what the people think should be accomplished through programs of vocational education and by the nature of the results they see. Since the community school is the people's school, and since the school program of instruction will be judged by its results, it behooves school people to give some attention to this approach to evaluation.

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[5] Sarah Blackwell, "Developing Instruments for Evaluating Certain Aspects of High School Homemaking Programs," Unpublished Thesis, Ph.D., Library, University of Minnesota, Minneapolis, University of Minnesota, 1952.

[6] Clara Brown Arny, *The Effectiveness of the High-School Program in Home Economics*, Minneapolis, University of Minnesota Press, 1952, p. 245.

[7] Cooperative Study of Secondary-School Standards, *Evaluative Criteria*, 1950 Edition, Washington, D.C., National Education Association, 1950.

Evaluation should not be thought of only as something that takes place *after* a course or a unit of instruction is completed. It may take place at any time that instruction is being given. It can be a very effective technique for the improvement of instruction. The emphasis should be placed upon growth rather than on end products only. This emphasis is very important in courses in which students are constantly working with materials and making or constructing things or growing things. If we are not careful we will make the mistake of thinking of the thing made, produced, or constructed as the sole evidence of learning. A well-made project, a large profit, fine livestock and crops, or well-made garments may constitute some of the evidence of growth, but they are not all the evidence.

Evaluation of instruction begins with the determination of objectives in terms of human growth and development. Such a listing should identify the abilities, ideals, habits, attitudes, interests, and appreciations to be developed. These objectives should be stated specifically. The next step is to decide what evidences will indicate whether these objectives are being reached. Having determined these kinds of evidence to look for in evaluation, teachers should then devise ways and means of collecting them. An example of how this method of evaluation is used in homemaking has been reported by Parker.[8] People in the community can help in collecting this evidence and in deciding the extent to which growth is being brought about. Evaluation involves measurement but is not limited to it.

A common mistake in evaluation is applying standards for vocational education to instruction in the practical arts. Practical arts should not be judged in terms of their effectiveness in getting people ready to take or hold a job or in terms of development of specific occupational skills. Each subject in the practical arts has its own peculiar values which lie within the subject matter and its effect on the student. For example, a high evaluation might be placed on an industrial arts course, from the standpoint of its exploratory value, for a student who, as a result of the course, discovered he had little interest and aptitude for industrial work at a bench or a machine. It might also be judged as an effective course for a lad who, although the things he made were of only average workmanship, has found these activities a means of expression and personal development.

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[8] Ethel Lee Parker, *How Effective Is the Teaching of Home Economics*, Bul. XVII, No. 4, June, 1945, Lexington, Ky., University Bureau of School Service, University of Kentucky, 1945.

There is much that can be learned by school people responsible for improvement of curriculum and instruction. There is no better way to become familiar with the objectives and student growth in vocational competencies and in attributes of general education than by visiting classes in these two important areas; by visiting the pupils at home, on the farm, and at work in business or industry; and by cooperative faculty discussions about these matters. In the next chapter cooperative faculty activities for the improvement of instruction are dealt with at length.

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Chapter 22

COOPERATIVE FACULTY ACTIVITIES IN IMPROVEMENT OF INSTRUCTION

Vocational Education and Practical Arts—the Concern of the Entire Faculty

A basic thesis of this book is that the program of the community school should be unified. Unity of purpose and structure is to be built into the school by the united efforts of the school faculty and the people of the community. The fact that a school aims to provide instruction for development of vocational competencies as well as to promote the general education of students does not and should not alter this unity. All teachers and all subjects taught can and should contribute to both aims, but in varying degree.

The entire faculty of the school should be informed regarding the several programs of vocational education and the areas of practical arts being provided in the school. Teachers of vocational subjects and the practical arts will get a "lift" from the knowledge that all the faculty understands what they are trying to do. But there is also a reciprocal value. Teachers chiefly in general education will be greatly encouraged in their work if the teachers of special and vocational subjects succeed in making these subjects contribute in some degree to the general education objectives of the school. Furthermore, teachers of the subjects of general education will find that their instruction will be much more functional if they can relate it in some degree to doing—to the creative and practical activities in and out of school in which their students are engaging.

Teachers of vocational education and the practical arts have a responsibility for acquainting other members of the faculty with the objectives, activities, and outcomes of the subjects in these areas. Many opportunities should be made available if they do not already exist. At meetings of the faculty, teachers of vocational and practical arts subjects should be asked to explain the programs and activities of their departments. All other teachers should do likewise. Displays and achievement programs also present possibilities for showing the work of students. It should be assumed that all members of a school faculty have good intentions toward each other and toward the school as a whole. These good intentions can be implemented to build a unified program only if all members of the faculty are fully informed. It is when members of the faculty lack information that they are apt to become provincial, envious, or uncooperative.

Teachers are commonly permitted and encouraged to visit teachers in other schools to get ideas for instructional improvement. When they do, however, the tendency is to visit teachers of the subjects which they themselves teach. A better way of learning the goals and problems of one's fellow teachers is to visit other teachers in the same system. Let the teachers of English, mathematics, and history exchange visits with the teachers of industrial arts, agriculture, homemaking, and machine shop. It is often surprising how little some teachers know about their own schools. One of the authors accompanied a class of teachers enrolled in a graduate course as they were being conducted through the vocational departments of a school system. Several of the teachers were employed in the school system but in other buildings. He was surprised to hear one teacher remark, "Why, I never had any idea things like this were going on in our schools." One wonders how such a teacher was able to relate his instruction to the vocational objectives of pupils or to counsel pupils relative to their educational or vocational plans in that community.

Some teachers of the so-called academic subjects would be surprised to hear that they were engaged in vocational education. But most school subjects can make some contributions to the fundamental preparation for work. For example, there are communications skills, computation skills, and understandings in science that are important in many vocations as well as in the everyday activities of people. The teachers of all subjects at the secondary level should make their courses functional in the lives of students, including the students' present or future work. We would agree with Ordway Tead, who says:

> . . . one of the most important springs of interest, one of the most sustaining motives to intellectual application, is the student's conviction that this or that subject or course of study is qualifying him for a useful career.[1]

We have commented in the preceding chapter regarding the teaching of so-called "related subjects." Actually, instruction by teachers of every subject could be somewhat related to the vocational objectives of pupils enrolled. This is because vocational competence involves, in addition to specific skills, certain habits and attitudes the development of which is a responsibility of the school as a whole. The general preparation of students as prospective farmers, homemakers, tool-and-die makers, assembly-line workers, clerk-stenographers, or sales persons should be accepted as a responsibility of the total school staff.

It must be realized by all teachers that the total task of vocational preparation is not something that can be accomplished by one teacher working alone. Cooperative faculty action must be made a reality. Committees or working groups should be organized and given opportunities to utilize democratic group processes to think, discuss, plan, decide, act, and evaluate as necessary to set up goals of education and ways and means of reaching them.

Committees for the Study of Community Needs and Education for Work

A common vehicle for a united effort to provide improvements in the program of vocational education and practical arts is a faculty committee. Usually such a committee is composed of the teachers in the

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[1] Ordway Tead, "Major Issues in Today's Higher Education," *College and University*, 24: 465–80, July, 1949.

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[1] Ordway Tead, "Major Issues in Today's Higher Education," *College and University*, 24: 465–80, July, 1949.

Not all of the functions of a faculty committee on vocational education and practical arts can be enumerated here. A few examples of such committees may serve to indicate some general problem areas in which they could be active. In one large system a committee has established policies for acceptance of students in day trade courses. Members of this committee include industrial arts teachers, vocational industrial education teachers, principals, and school counselors. In a medium-sized system a vocational education committee is composed of the teachers of homemaking, of business, of vocational industrial education, of agriculture, and of industrial arts; the coordinator of cooperative training, the principal, and the superintendent. It is a quasi-advisory committee since each teacher invites to each meeting a citizen interested in the area of training represented by the teacher. This committee advises primarily regarding policies of selection of students for the cooperative training program. In addition, it helps to secure and make use of information from teachers that would be of value in placement of the student and which might also help him to achieve a more satisfactory occupational adjustment. The committee brings its recommendations to the entire school faculty of the high school for its consideration. In a small system the entire faculty of the high school functions as a committee-of-the-whole to deal with vocational and practical arts education, the local part-time director of vocational education serving as chairman of the group. The responsibilities of the entire school for developing acceptable work attitudes and habits are discussed, as well as adjustments of the curriculum in relation to students' vocational objectives.

Such means and methods of sharing information about students, their work experiences, their home environment, and their educational and vocational progress are very important for the development of a good instructional program in vocational education. Many persons could become much better teachers if they only knew more about the boys and girls they are teaching. Teachers might well spend some time, too, in thinking through, as a group, what some of the school goals should be and what kind of instruction might be most effective in attaining them.

In schools in which there is a work-experience program that is being planned or is under way such as is described in Chapter 17 it would be desirable to have a faculty committee organized to coordinate much of the instruction with the work experiences of students. If the program were one in which the major outcomes expected were exploration, development of good work habits and an understanding of the business, industrial, and farm life of the community it would be important to have on such a committee not only the principal and teachers of social studies and the guidance workers but also teachers of other high school subjects. Where there is a program of cooperative training the committee should also include the coordinator and some teachers of related courses as well as other persons outside the school.

A faculty committee to study community needs should include persons from the community. These persons might or might not also be members of a vocational advisory committee or council. The methods of community study to determine needs for vocational education in the school are discussed at length in Chapter 25.

If committees of the faculty are to be effective and are to enter into creative work, they must be allowed time for such work. This time might be secured by freeing all members of a committee for a certain time each day, or by setting aside one or more days when the staff and other members of the committee could get together on a workshop basis, preferably physically removed from the school building. There they could, without hurry and interruption, devote their best energies to the attack on important problems suggested in the foregoing discussion.

Cooperative Activities in the Improvement of Instruction in Vocational Education

As community needs for vocational education are discovered and as new needs emerge, new courses should, in many instances, be added to the curriculum and older ones revised. Members of the faculty could be of help in setting some of these courses up. An example of this is a course in home and family living that might be taught in the homemaking department. Teachers of the social studies, health and physical education, and biology, as well as teachers of the practical and fine arts would probably be able to contribute constructive ideas for the course outline. The parents would, of course, also be involved. When a cooperative training program is being planned, teachers of courses which contain subject matter having a direct bearing on training needs for specific jobs should help to outline the more important in-school phases of the program.

In a previous chapter, reference was made to programs of life adjustment for those pupils who are not taking specific training for occupational placement but who will either take such training at a higher level or will receive only a limited amount of it on the job as an employee in a semi-skilled occupation. All teachers could make a contribution to education for life adjustment of youth and should take group action to do so. They could help each other to develop purposeful activities for students which should help them better to adjust to a work situation. Teachers of vocational and practical arts subjects could render a great deal of service to other teachers if they would inform them of the community resources of work, of persons, and of organizations and would suggest ways of using these resources.

One cooperative faculty activity which has come into fairly wide usage within the past decade is what has been called the B-I-E day.[2] This is a cooperative activity between the school faculty and representatives of business and industry. These representatives are usually from management but should also be from labor. The project is designed to help bridge the gap which often exists between business, industry, labor, and education. On a pre-arranged day all classes are dismissed and the teachers visit factories, stores, banks, offices, and other establishments in the community which generally employ graduates of the community school. Opportunity is provided for teachers to observe at first hand the processes, workers, and working conditions, and to discuss them with representatives of these business and industrial concerns. Through observation supplemented by discussion, school people learn not only something of the employment situations but also what characteristics employers think they want in prospective employees. If a cross-section of people in these establishments is interviewed and involved in discussions, a well-rounded understanding should result. In many communities at a subsequent date another B-I-E day is arranged in which the visitation is reversed. Then the hosts of the previous visitation day become the visitors. They visit the elementary and secondary schools, including the vocational and practical arts departments, and gain some idea of what is being done and problems faced in educating youth for work and for living.

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[2] For illustrations of this type of cooperative activity and suggested steps for developing a program see William J. Lamplough, "Business-Industry-Education Day," *American Vocational Journal* 25: 7, Oct., 1950.

The values of these special visitation days will depend upon a number of things. One of these is the amount of cooperative faculty planning done before and after such a visit actually to bring about changes in the curriculum. Another is the amount of orientation performed for the employers and employees prior to the visits to their establishments. Probably a much more nearly complete picture of the employment situation and life adjustment needs could be obtained if representatives of the labor force as well as management were regularly included in this program. Visits to farms should also be included, except in metropolitan areas.

While non-vocational teachers of the high school are not required to have had successful experience in some occupation, it is apparent that some work experience for all teachers would be a good thing. One way to provide this would be for teachers to take jobs in industry, business, or agriculture during summers or vacations. Of course, some teachers regularly do this, at a job with which they are already familiar, or for which they already possess the minimum competency required by the employer. Some teacher-educating institutions have enlisted the cooperation of larger industrial and business concerns in getting them to employ teachers part time for a period during the summer. The teachers enroll with their chosen college or university and receive credit for this work experience in connection with graduate courses in counseling and guidance taught by staff members of the institutions and assisted by representatives from the business or industry employing the teacher. While the principal purpose of this experience is to prepare teachers for their role in vocational guidance of students there is little doubt that the teachers who get this participatory experience will be in a much better position to relate the instruction in their courses to the world of work. Teachers of the so-called cultural subjects should become very familiar with the work of the community and the work of the parents of children in the school. Their teaching of art, literature, music, English, and other subjects could be made more realistic if there were a closer relationship between them as taught and the work of the people.[3]

Institutions of teacher education have for years provided in-service courses of a professional nature for teachers. These courses frequently have been campus courses moved to an extension or extra-mural center, without, however, much change, and they have not always resulted in instructional improvement. If the faculty of a school were to decide upon some major problems for cooperative investigation it would probably be possible to get some expert help and consultation from representatives of these institutions. One of the areas of instruction on which such a cooperative faculty study might center is that of vocational education and practical arts. In addition to the assistance from institutions which prepare teachers, help could be secured from the state supervisory staff in vocational education of the state department of public instruction.

One of the outgrowths of such cooperative activity might be the conducting of "action research." [4] The application of techniques of research in the solution of instructional problems in the areas of vocational education and practical arts has been going on for some time in isolated cases and by individual teachers. Some of these techniques of research also could be used by a group of teachers working together to study problems in this field. The more obvious areas of problems which might be studied in this way would include analysis of occupational trends and job requirements, follow-up of graduates, and study of resources in the community which would be of value in enriching instruction in these areas.

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[3] For an elaboration on this point see Clarence E. Weber, *Personnel Problems of School Administration*, New York, The McGraw-Hill Book Co., 1954, pp. 92–94.

[4] See Stephen M. Corey, *Action Research to Improve School Practices*, New York, Bureau of Publications, Teachers College, Columbia University, 1953.

Exchange Classes, Joint Classes, and Cooperative Teaching

One cooperative faculty activity which has become rather common in smaller and medium-sized high schools is the exchange of classes for a period of two to six weeks by two teachers in the areas of vocational education and/or practical arts. Such exchanges have taken place between teachers of agriculture and homemaking, and of industrial arts and homemaking. They have been most common in schools where no regular courses in industrial arts or agriculture are provided for girls and/or where no courses in homemaking are available for boys.

In getting ready for the exchange of classes both teachers should meet with each of the two classes involved. The purpose of this preliminary meeting would be to acquaint students with the proposed exchange and to solicit suggestions from them as to what they would like to do and learn in the exchange subject. Following such a meeting a small committee from each class should meet with the two teachers and the principal to work out cooperatively a schedule of units and classroom, laboratory, and shop activities. Homemaking students will frequently be interested in a wide variety of agricultural subjects. These might include instruction in selecting farm products for family food, care of a home poultry flock, vegetable and flower growing, and home beautification. Girls are likely to be interested in industrial arts activities such as care and repair of home electrical appliances, care and repair of furniture, and selection and use of common tools for repair and construction about the home. Students of agriculture, as well as those in industrial arts classes, will frequently be interested in such topics as personal grooming and selection of clothing, food selection and meal planning for camping, table manners and etiquette, as well as in experience in preparing and serving foods.

Such exchanges as have been described might be the forerunner of semester or one-year courses in agriculture for girls, in homemaking for boys, or in industrial arts and/or home mechanics for girls. However, even if such courses were available, many students would not find it possible or convenient to take them; so exchange units probably would still be in demand.

In rural communities it is not uncommon for the girls in advanced homemaking and the boys in agriculture to meet together for instruction by the teacher of either or both classes. Common areas of interest have included topics such as the family budget in relation to the farming program, home beautification through landscaping and interior decoration, planning the farm family food supply, and other problems of home and family living. In some schools which have a school garden the two classes will plan for the use of the land and will learn how to grow vegetable crops by growing them. These crops are then harvested in the fall and preserved by members of the homemaking class through canning or freezing for use later in school lunch or other school needs. Joint classes are also conducted for out-of-school farm youth. Problems such as those just listed are considered by such groups. Occasionally the class might consist of a group of young married couples. Such a class would be taught at times by the teacher of agriculture and at times by the teacher of homemaking. At certain meetings both teachers might take part in the instruction and at times the group would be divided. When joint classes are conducted the same careful student-teacher planning should be carried out as is done with exchange classes.

Teachers could undoubtedly help each other more than they have been accustomed to doing in the past. For example, if a teacher of homemaking does not feel well prepared to discuss the grades and cuts of beef and pork the teacher of agriculture could help. If the teacher of agriculture feels inadequate to teach a lesson on purchase of insurance for the farmer he might get help from the teacher of business. The coordinator of cooperative training would need to call on many teachers for help in instructing the students under his jurisdiction. Some teachers of industrial arts might be qualified to give instruction in some phases of farm mechanics. Others probably would be qualified to give instruction to a class in auto mechanics. It is quite clear that if the experience and training in vocational areas of all teachers were more fully utilized the quality of the total instructional program in vocational education and practical arts could be considerably improved.

Another way in which teachers can cooperate for the improvement of instruction is in the sharing of equipment, rooms, and facilities. One of the more common practices is the use of a shop room for more than one kind of class. It might be necessary in the interest of economy for a class in industrial arts and a class in farm mechanics to use the same shop. In small schools in rural communities it is not always possible to have an adequate shop for teaching farm mechanics in a department of vocational agriculture separate from a shop for the teaching of industrial arts. Thus, one large, double-purpose shop must be shared by the two teachers. This points up the necessity for a clear understanding by these teachers of the objectives of both programs, and the cooperative development of policies for the use of these facilities. Even where each department has its own shop and laboratories, it might be desirable to share some of the larger or more expensive pieces of equipment.

The teachers and facilities of vocational education and practical arts also could be used as a service to other departments in the community school. For example, the teacher of homemaking is often assigned some time to serve as a consultant on the school-lunch program. She could help to make that activity an educational experience through developing good table manners, more suitable food habits, and improved student behavior. A study by Lurry showed that many educators outside the field of home economics felt that the teacher of homemaking could contribute to a core program by serving as core teacher, core coordinator, resource person, supervisor of laboratory work in the home economics room, and in planning such a program.[5] However, she should not be given responsibility for the school lunch program.

Some construction or repair projects are done by the industrial arts department if they contribute to the educational goals of students and do not involve exploitation of students in any sense. In small schools the teacher of agriculture is often called upon as a consultant on lawns, landscaping of school grounds, and improvement of play fields. Many worth-while experiences could be provided in surveying, tiling, and landscaping. The printing of school announcements, programs, record forms, and sometimes the school paper are activities of the printing shop of a department of industrial arts having printing machinery and equipment. Such activities as these conducted by or in the vocational and practical arts departments for other departments of the school serve to enlist the cooperation of other teachers and students in their classes. Exploitation of students must, of course, be avoided.

Many more examples might be given of ways to share equipment and facilities, ways for teachers to work together to make instruction more functional, and ways to enlist the united energies of all members of the school staff. But above all, what is needed is a desire to cooperate and a point of view. The point of view suggested is that all teachers in a school can contribute to the vocational preparation of students, and that no equipment or facility is the private property of the teacher assigned to it. Rather, it belongs to the people of the community for their educational use and the instruction of their sons and daughters by anyone on the school faculty qualified to instruct them.

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[5] Lucile L. Lurry, "The Contribution of Home Economics in Selected Problem Areas in the Core Curriculum of the Secondary School," Unpublished Doctoral Dissertation, Columbus, Ohio, Library, The Ohio State University, 1950.

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Chapter 23

FUNCTIONS OF SUPERVISORY PERSONNEL IN RELATION TO INSTRUCTION

The Nature of the Functions

The main function of supervision is to improve the learning situation of children in the elementary school, of boys and girls in the secondary school, and of men and women in the adult program. An analysis of the ways in which a supervisor accomplishes this function leads us to a breakdown into a number of subdivisions. Wiles [1] lists five functions:

> The improvement of the learning situation for children cannot be provided by centering supervisory attention upon teaching techniques. The teaching is the product of the teacher's total experiences. To improve instruction, supervision must provide: leadership that develops a unified school program and enriches the environment for all teachers; the type of emotional atmosphere in which all are accepted and feel that they belong; opportunities to think and work together effectively as a faculty group; personnel procedures that give the teacher confidence in the school system; and program change based on honest evaluation. Such supervisory activities produce the type of school in which teachers grow in their capacity to evolve more worth-while learning experiences for children.

While the functions requiring skill in human relations, group processes, personnel administration, and evaluation may be basically the same in relation to any area of the school program, the function of giving "leadership that develops a unified school program and enriches the environment for all teachers" is one that requires a knowledge of that area of the school program in which leadership is to be provided. A person who has only a general knowledge of vocational education and the practical arts and has had no experience in this field would not be able to give adequate leadership any more than a person in the position of superintendent of schools could give adequate leadership if he had not had some preparation for and experience in public education. All personnel in the schools who perform the supervisory function of giving leadership to vocational education and the practical arts activities should have some preparation in these specialized areas and an understanding of the whole school program so that they can see the proper relation of the parts to the whole. This applies to all of the following functionaries normally found in larger school systems: superintendent, assistant or associate superintendent for vocational education, curriculum consultant, director of vocational education and practical arts, supervisor of each of the vocational or practical arts fields, school principal, assistant principal, community college dean, chairman of each of the departments of vocational education and practical arts, and the teachers in these departments.

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[1] Kimball Wiles, *Supervision for Better Schools*. Copyright, 1950, by Prentice-Hall, Inc., p. 10. Reprinted by permission of the publisher.

The leadership function in relation to vocational education and the practical arts must be performed in the smaller school system just the same as in the larger school system, if the needs of the community are to be served. Under such circumstances leadership must be provided by the superintendent, the principal, and the department chairmen. The only difference is that in a larger school system the superintendent and principal can delegate some of their responsibilities for educational leadership to staff members whose training and experience should qualify them for superior leadership in their fields of specialization.

No attempt will be made here to distinguish between administrative and supervisory functions. Both types of activities are generally found in any administrative or supervisory position. That is, any position which is primarily administrative probably carries with it some supervisory functions, and most supervisory positions require the performance of some administrative duties. For example, the position of superintendent of schools is primarily administrative, but he also has the responsibility for educational leadership which includes the improvement of instruction. In a small school system he may perform this function himself; the larger the system the more personnel will be available on the staff to assist him with this responsibility. The same might be said of the principalship, excepting that there is implied in this position a primary responsibility for the improvement of instruction.

The general school administrator, the principal of a school, the dean of a community college, the curriculum consultant or any other functionary having responsibilities for a total program of education for children, youth, or adults should have an understanding of all phases of that program. Teachers of vocational or practical arts subjects (particularly the former) frequently find themselves on a faculty of a school dedicated to the education of the whole child, but with a principal who is completely uninformed about the program and sometimes even expresses a lack of interest in it. Ideally, the principal is interested in and understands all phases of the school program. He is eager to do whatever needs to be done to improve the quality of instruction in this area as well as in any other area. This suggests the need for certain types of experiences, either as part of his training for school administration or through direct contact with vocational education programs.

The Role of the Superintendent

The superintendent of schools, in a community of any size, should be responsible for providing educational leadership both in the schools and in the community. It is recognized that he has other important duties dealing with the administration of the schools, but unless he performs the functions of an educational leader he is not fulfilling his obligation to the community.

In a smaller community the superintendent must of necessity perform many of the duties of a supervisor. He must be qualified to give leadership on all levels—elementary, secondary, and adult. He must be informed on matters pertaining to all areas of the curriculum, including the specialized fields. For example, the superintendent may also serve as principal of the high school with a program of vocational agriculture. He is therefore directly responsible for giving instructional leadership to the agricultural program, including the supervision of adult classes for young farmers and adult farmers. He should feel no less responsibility for giving educational leadership to homemaking, business, and industrial courses than he does for the more traditional subjects. This suggests the need for preparatory training which will give the person aspiring to a superintendency a maximum degree of insight into and understanding of all curricular areas. Instruction in vocational education and the practical arts should be a part of this preparation.

The superintendent in a larger community has no less responsibility for educational leadership. He has the same responsibility for the improvement of instruction in the schools, but to the extent that he has available a staff of supervisory personnel he can and should delegate certain duties and responsibilities. He should, however, budget a portion of his time to matters pertaining to the curriculum and teaching. If the administrative head of the school system shows little interest in or has no time for problems dealing with the improvement of instruction, it is unlikely that other personnel in the schools will have much enthusiasm for studying and revising the curriculum and improving their teaching techniques. The superintendent of a larger community may have on his staff an assistant in charge of vocational and practical arts education; this person may have the title of assistant superintendent or director of vocational education and practical arts. If the city is large enough, he may also have special supervisors for business, homemaking, and industrial education. The superintendent should use these specialists but should not abdicate his function as an educational leader in these special fields.

Hugh B. Masters, speaking to the members of the American Association of School Administrators assembled in Atlantic City, New Jersey, in February, 1954, had this to say about the superintendency:

> We are now face to face with a new concept of educational leadership, as I view it, and it essentially grows out of the fact that this job is almost impossible as it is now operated and it devolves upon those who claim that they are interested in public education to come forth with some notions of support, of finding more effective ways of building not one man into the superintendency or the administrative post, but building a whole team of individuals working together to develop and to collect the necessary data to make long-range policies that affect public education in this country.[2]

Since vocational education and the practical arts are becoming increasingly important parts of the public school program on the elementary, secondary, and adult levels, the need for a team member, preferably with the title of assistant superintendent, to give educational leadership to this part of the program appears obvious.

The Role of the Local Administrator of Vocational Education and Practical Arts

The local administrator having responsibility for the improvement of instruction in vocational education and the practical arts, whether he has the title of assistant superintendent or director, is the right arm of the superintendent and should perform for him those functions which the superintendent would perform himself if he had the time and were qualified. In other words, he is a member of the staff and, as such, should give leadership to the development of vocational educational and practical arts activities in the elementary schools, the secondary schools, the community college, the adult evening school, or through agencies outside the schools. He should not attempt to organize and operate a separate program either within the buildings used by these units of school administration or in separate buildings. This means that he should work as a member of a team on each of the faculties involved in problems of the improvement of instruction in vocational education and practical arts. This function is sometimes performed by a person on a part-time assignment; he may also serve as the principal of a trade school, a chairman of a department in the high school, coordinator of cooperative training in the high school, director of guidance, or director of adult education. Under such circumstances he may be directly responsible to the superintendent for one function and to the high school principal for another. This makes it possible for smaller communities to have a well-qualified individual to give leadership to the vocational and practical arts activities. Communities of five to ten thousand population have provided this type of leadership through a combination of several related functions.

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[2] *Building Americans in the Schools*, Official Report of the 80th Annual Convention of the American Association of School Administrators, Washington, D.C., National Education Association, 1954, p. 113.

The success of any program of vocational education and practical arts is dependent upon the quality of its leadership. The attainment of desired objectives requires alert, resourceful, informed, and aggressive leadership by the local administrator who is assigned the specific responsibility of administering and supervising the program. Only a person who has had considerable experience in at least one of the vocational and practical arts fields should be appointed to such a position.

Programs of vocational education and practical arts must be tailor-made to fit the local situation. Variations in occupational activities and practices in different communities make it necessary to formulate instructional content to fit the particular needs of the area for which training is being given. The content of courses for both young people preparing to enter occupations and adults who wish to up-grade themselves in their jobs must be continually reviewed and revised so that it will be consistent with current practices in the community. The function of curriculum development and the improvement of instruction in relation to this area of the community school program is, therefore, especially important. A competent and qualified leader is needed to perform these tasks. The duties of a local administrator of vocational education and the practical arts are many and varied, some of which are highly technical. A bulletin published by the

American Vocational Association titled, *Administration of Vocational Education at State and Local Levels*, gives the following list of responsibilities of the local administrator of vocational education. Many of the same duties need to be performed in relation to the practical arts.

selection or recommendation of the professional staff, including teachers, and the organization of professional pre-service and in-service training courses for teachers

direction and supervision of the total program of vocational education, including courses for all-day and part-time students, out-of-school youth, and adults, in both day and evening classes

continuous production and revision of vocational courses to meet the changing occupational demands of the area

purchase, installation, and maintenance of equipment and storage and distribution of consumable materials

preparation of budgets and equitable distribution of available funds to the various services

promotion of studies and surveys to keep the vocational program in tune with the demand for workers of all types in the area

development and revision of instructional materials adapted to local needs

organization of special vocational courses as needed, for supervisory training, labor shortages, defense production, or other emergency needs

working with advisory groups, both general and craft committees, in the interests of coordinating school instruction with occupational needs

supervision of adequate guidance and counseling services for the vocational phases of the community's schools, including placement and follow-up services to graduates

promotion of the vocational program through appropriate exhibits, news releases, school visits, radio and television, etc.

solicitation of the public favor and support that is necessary to meet the relatively large costs of vocational education

development of close and friendly relations with labor, employers, and other interested community groups and individuals, outside the school organization

maintenance of cooperative relationships between the vocational education program and other phases of education

maintenance of continuous cooperative relationships between the general administration of the local school system and the state and federal vocational authorities who are concerned with the vocational program of the public schools.[3]

This list is quoted here merely to show the scope and diversity of the duties and responsibilities. In some communities certain of these functions may be allocated to other personnel on the superintendent's staff, but in any event these duties need to be performed by someone. It is obvious that the superintendent himself cannot find the time to perform these functions except in a very small school system. Also many superintendents feel less competent in the vocational fields than they do in the general education areas of instruction. Qualified assistants are needed to give leadership to this important phase of the community school program.

The Role of the Special Supervisor or Consultant

In 1950 the superintendents of schools in the United States were asked to report whether or not they employed on the central staff such professional helpers as assistant superintendents, directors in subject fields or school levels, technical experts, and other persons in charge of major duties. Fourteenth on a list of thirty-three types of positions was that of "supervisor of vocational subjects" with 21 percent of the superintendents reporting that they had such supervisory personnel. It is not clear whether or not this category included the practical arts supervisors. Certainly it did not include *all* of the vocational and practical arts supervisors because the seventeenth category on the list was "supervisor of home economics" with 16.8

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[3] *Administration of Vocational Education at State and Local Levels*, Committee on Research and Publication, American Vocational Association, Washington, D.C., American Vocation Association (undated), pp. 10, 11.

percent of the superintendents reporting that they employed such a person. The point is that many school systems, especially the larger ones, do employ special supervisors for such fields as business, industrial, and homemaking education. In some communities the term consultant is used instead of supervisor. Such specialized personnel generally work under the direction of the administrator responsible for vocational education and the practical arts. Chapter 29 discusses the organization of the community schools.

The duties of the special supervisor in general are the same as those listed for the local administrator of vocational education and practical arts, but they are limited to one of the areas of the practical arts and vocational education. The supervisor of industrial education, for example, would select and recommend personnel, organize in-service professional growth experiences for industrial teachers, promote studies to determine needs for industrial education, consult with teachers in regard to the revision of industrial courses, advise on purchase, installation and maintenance of equipment, assist in the preparation of budgets for industrial education, work with advisory groups interested in industrial education, assist in promotional activities, develop and maintain working relationships with labor, industrial employers, and other interested community groups and individuals, and develop and maintain cooperative relationships with other phases of the total school program.

The Role of the School Principal

The school is the basic administrative unit and therefore must provide the basis for unity in the educational program. The principal has long been recognized as the administrative head of the school, responsible for the managerial phases of its operation. The principal of a modern school must also provide educational leadership for the faculty. The responsibility for the development of the curriculum and the quality of teaching is one which he cannot delegate, if all phases of the school program are to operate as parts of a coordinated unit.

He should be no less concerned about the specialized aspects of the school program than he is about the general education phases. He must also provide a balanced educational program for all children, those who will leave the school to work and live in the community as well as those who will continue their education in higher institutions. This responsibility carries with it an implied authority. If the principal is to be held responsible for all instruction in his school then it follows that he and his staff must be given the authority to make decisions regarding curriculum changes and teaching techniques. Program changes cannot be made merely because someone on the superintendent's staff considers them to be desirable. Practical arts and vocational supervisors and administrators on the central staff should be consulted, and their counsel and advice should be considered in relation to problems of instruction. In fact, they might help the principal and faculty to recognize and identify problems, but the responsibility for improvements must rest with the principal and the teachers.

The Role of the Department Head or Committee Chairman

For purposes of efficiency in administration there needs to be within each school some type of organization for administration. Traditionally, the school has been divided into departments organized on the basis of subject matter taught. Modern theories of school organization and administration suggest that the departmentalized school, with a head of each department who has indefinite tenure, may not be the most productive, especially in terms of the improvement of instruction.

Some schools have made extensive use of committees to accomplish curricular improvements. These committees may be organized along subject matter lines or on some other basis. Committees considering problems dealing with the individual and his needs are important in the development of a unified program of education, but need not replace the cooperative efforts of groups of teachers having a common interest in subjects taught in the school. The chairmanship of committees can be shifted as teachers demonstrate leadership qualities.

Whatever the organizational pattern, small groups of teachers as well as the faculty as a whole need the opportunity to work together on problems of mutual concern. The leadership for these groups may come from someone in an official position to which he has been appointed by the board of education, or it may emerge from and be recognized by the group. The department head or committee chairman no matter how he has been selected should work *within* the group and as a *member of* the group. His ideas should prevail only because of the worth of them and not because of any vested authority. The use of committees which cut across departmental lines is discussed in Chapter 22.

The Role of the Teacher

The quality of any educational program is determined to a very large extent by the personal qualities, professional competence, attitudes, and insights of teachers. The involvement of teachers in the process of the improvement of instruction is absolutely essential because teaching is the result of the teacher's total experiences, not merely the classroom experiences with learners. For the teacher to be maximally effective, he must participate in planning and evaluating instruction. Actually, any significant improvement in the quality of instruction must come through the improvement of the teachers. Teachers must be helped to develop convictions that the curriculum can and should be improved and that better teaching methods can and should be developed. They must then have the opportunity to share in the process of making these changes.

In a very real sense, the problem of the improvement of instruction and that of in-service teacher education are one and the same. At least it can be stated without equivocation that the professional growth of the teacher is advanced by participation in program planning activities and evaluation procedures. To do this requires some time of the teacher away from actual teaching duties. The results which can be expected from the utilization of the teacher's time in planning and evaluation more than justify the investment.

All that has been said about the involvement of teachers in general in the improvement of instruction applies to practical arts and vocational teachers; their instruction must be based upon real-life activities in the community and the product of their teaching directly affects the people who live and work in the community. Instruction in these areas must be ever-changing to adjust to community conditions and the needs of the people. Dynamic instruction cannot be provided without the active participation of the teachers with the principal, the special supervisor, the local administrator of vocational education and practical arts, and others working on the team with them.

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Chapter 24

RESOURCES AVAILABLE AT STATE AND NATIONAL LEVELS

While the local school district is the basic unit in the administration of the community schools, it is not able to perform all functions for itself. The administration of schools can be facilitated through the use of certain state and Federal resources.

Constitutionally, education in the United States is a state responsibility. In most states, however, this responsibility has been delegated, at least in part, to the counties, cities, towns, villages, townships, and other local school districts. This condition appears inevitable if we subscribe to the community-school concept explained in the early chapters of this book. The community school idea should not be interpreted too narrowly, however; it is not implied that the schools should prepare people to live and work only in the local community in which they now reside, because each individual is a member of several communities at once. He is a member of a neighborhood, a village or a city, a state, a nation, and the world. He has responsibilities to each of these "communities" and should be prepared to live in all of them. The responsibility for education should therefore be shared by the local community, the state, the nation, and to some extent, the world. The state and nation must be concerned about education at least to the extent that the welfare of the people of a state or nation and our national security are affected. Is it not quite logical then that the local community should look to the state and the nation for resources which it is not able to provide adequately or which can be provided more appropriately by state or national agencies or associations?

Vocational education is no less a local community responsibility than is any other segment of education. Many educators and laymen have the erroneous notion that vocational education, because of Federal subventions, is a national program. Vocational education and the practical arts should be rooted in the local community, should be planned on the basis of community needs, should be evaluated by the community, should make maximum use of community resources, and should avail itself of those state and national resources which will enhance the program.

Financial Resources Available

The problem of financing a community school program of vocational education and practical arts will be discussed in some detail in Chapter 30. Only supplemental Federal and state aid will be considered here.

In 1917 the first of a series of National Vocational Education Acts was passed, known as the Smith-Hughes Act. The latest of this series was the National Vocational Education Act of 1946, commonly referred to as the George-Barden Act. This Federal legislation was enacted for the purpose of promoting and developing vocational education through a plan for cooperation between the Federal government and the states. A Federal bulletin which interprets these acts states two fundamental ideas upon which this plan of cooperation was based:

> (1) That vocational education is a matter of national interest and essential to the national welfare, and (2) that federal funds are necessary to stimulate and assist the states in making adequate provisions for such training.[1]

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[1] *Administration of Vocational Education*, Vocational Education Bulletin No. 1, General Series No. 1, Revised 1948, Office of Education, Federal Security Agency, Washington, D.C., United States Government Printing Office, 1949, p. iv.

The funds provided by Congress for vocational education are therefore intended to "stimulate and assist" the states. In the administration of this plan of cooperation each state prepares a "state plan" which outlines the uses to be made of Federal funds which will become available. Some states publish the "state plan," while other states have prepared and published a guide for local administrators to help them plan and organize programs of vocational education that will meet requirements for state and Federal reimbursement. The funds provided under the National Vocational Education Acts are to be expended under the direction of the state board for vocational education as provided in the state plan. The state plan shall include the following general conditions:

1. The education provided shall be under public supervision or control.
2. The controlling purpose of such education shall be to fit for useful employment.
3. Such education shall be of less than college grade and designed to meet the needs of persons over 14 years of age.
4. The funds received by a state shall be paid out only as reimbursement for expenditures already incurred.
5. Each dollar of Federal money used shall be matched by a dollar of State or local money, or both, expended for the same purpose.
6. The cost of instruction supplementary to the vocational instruction necessary to build a well-rounded course of training shall be borne by the State and local communities and no part of the cost thereof shall be paid from Federal funds.[2]

Any Federal funds for vocational education coming to a state under the terms of the state plan are placed in the custody of the State Treasurer and, in combination with state appropriations for vocational education, are administered as one fund.

From the point of view of the local administrator the only source of financial aid for vocational education outside the community is the state department of education, since this agency is responsible for the administration of both state and Federal funds. Because each state has its own state plan, the specific provisions which must be satisfied in order for a program to qualify for vocational aid vary from one state to another. It is therefore recommended that anyone interested in the conditions under which reimbursement may be obtained should request from the State Director of Vocational Education a copy of the state plan or other publications in which these conditions are defined for each type of vocational program in agriculture, homemaking, business, and industrial education.

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[2] *Ibid.*, p. 88.

Federal aid to the states for educational purposes is not unique to vocational education. The Ordinance of 1785 made grants of land for the maintenance of public schools, the Morrill Acts provided land and financial aid for land-grant colleges, the Smith-Lever Act provided funds for agriculture and homemaking extension instruction, the Smith-Sears and the Smith-Bankhead Acts provided funds for vocational rehabilitation. In addition to these continuing educational programs, the Federal government has provided aid for a variety of emergency programs, such as the National Youth Administration, Civilian Conservation Corps, School Lunch Program, School Building Program and the Servicemen's Readjustment Act. During World War II the Federal government appropriated nearly 300 million dollars for the training of war production workers. This program was operated through the community schools with the use of vocational education facilities and resulted in the training of over 11 million men and women needed to produce the goods and material so essential to the winning of the war. Billions of dollars have been spent since the war for vocational training of veterans. The total cost of these war programs has been borne by the Federal government.

A large proportion of the cost of operating the community schools comes from state appropriations. In some states the state carries a larger share of the total financial burden than does the local community. The bulk of these state funds are used for elementary and secondary education and are distributed on the basis of average daily attendance or school membership. To the extent that the practical arts and vocational education are a part of elementary and secondary education, these programs benefit by such general funds in addition to whatever special financial aids might be available for such purposes. Some states have provided special subsidies for certain phases of the community school program which indirectly can be used to support vocational education and the practical arts. State appropriations earmarked for adult education, community college education, and camping education are examples. In addition, a few states have provided financial assistance for vocational programs which do not come under the provisions of the agreement between the state and Federal government (the state plan) and for some phases of the practical arts. Also, most states make funds available for the vocational rehabilitation of the disabled. Since the methods of administration of these state programs of financial assistance vary considerably, it is not possible to give detailed information. Local school personnel should consult the state department of education to determine what financial aid is available and under what conditions it can be obtained.

Consultative Services Available

Consultative services are generally available to community school personnel from state governmental agencies, such as the state department of education, state employment service, state departments of health, agriculture, conservation, labor, commerce and industry. Consultants are also available from many colleges and universities, especially those engaged in the preparation of teachers. Let us consider some of the specific kinds of consultant services which might be obtained from either the state department of education or institutions engaged in teacher education; in most states these services can be obtained from both. In relation to the broad field of vocational education and practical arts local personnel can get assistance in: (1) determining community needs for vocational education and the practical arts, (2) establishing a total program in accordance with determined needs, (3) developing an organization for maintaining an adequate counseling and guidance service for youth and adults, (4) organizing local advisory committees for vocational education and the practical arts, (5) working with representatives of business, industry, labor, agriculture, and other community groups so that a maximum of cooperation and service will result for the school program, and (6) developing techniques for interpreting the total program. More specialized consultant services in any one of the practical arts and vocational education fields are available. For example, personnel who have had considerable experience in agricultural education might be invited to consult with personnel from the community school on such matters as (1) analyzing needs for agricultural education in the community; (2) improving facilities for agricultural education or (3) improving the quality of instruction in agricultural education. Also, an individual who has had extensive experience in some particular phase of one of the vocational or practical arts fields such as apprenticeship training, cooperative work-study programs, or adult programs might be useful as a consultant.

Not all consultants need to be brought from the state capital or the campus of an institution. Many governmental agencies have representatives in county or regional offices or in centers of population. Representatives of the land-grant colleges—county agricultural agents and the home demonstration agents—are scattered through most states and constitute a valuable resource.

Federal agencies have consultant services available primarily to state departments and colleges and universities. Occasionally such services can be secured to work with the administration and faculty of a community school. They are also frequently available for regional and state conferences in which local community schools participate.

Research and Publications

The United States Office of Education now in The Department of Health, Education, and Welfare, was established by an act of Congress in 1867 "for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country." Since then the functions of the office have been expanded to include the making of and reporting on research studies needed to guide educational practice. And more specifically, the basic Vocational Education Act of 1917 appropriates an annual sum of money a portion of which is to be used "to make, or cause to have made, studies, investigations, and reports, with particular reference to their use in aiding the States in the establishment of vocational schools and classes and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and home economics."

The research and publication activities have resulted in periodic and special reports which have served to improve the vocational education and practical arts activities in the states and local communities. Many of these reports have been quoted in this book and some are listed among the selected references at the end of chapters.

Other Federal agencies have a function similar to that just described for the United States Office of Education. The United States Departments of Labor, Agriculture, and Commerce conduct research and prepare reports which are a useful resource in planning and conducting community programs of vocational education and practical arts. The Bureau of Labor Statistics (particularly the Occupational Outlook Service), the Bureau of Employment Security, the Bureau of Apprenticeship and the Women's Bureau in the Department of Labor, and the Bureau of the Census in the Department of Commerce make studies and prepare publications on matters of interest and concern to local school personnel responsible for community school programs. The number of such reports is so large that a listing here would be impracticable. These reports are printed by the United States Government Printing Office and offered for sale by the Superintendent of Documents, Washington 25, D.C.

Educational organizations such as the American Vocational Association, the National Education Association, and the American Council on Education engage in research and publish reports relative to vocational education and the practical arts. These materials can be obtained from the association offices which are located in Washington, D.C.

The amount of educational research done by the states and the number and quality of publications available from state departments and colleges and universities varies considerably from one state to another. Most state departments of education have on their staffs someone who has the function of conducting and/or directing research activities. In a number of states there is to be found a research specialist on the staff of the vocational division. Incidentally, these research people are generally available to assist local communities in setting up research studies and surveys. Most of the research in vocational education and the practical arts is done through the colleges and universities. Summaries of research reports are available in the fields of agricultural and industrial education.[3]

The state department of education is probably the best source of information regarding available publications on any topic related to vocational education and the practical arts. Most state departments that do not have a publication on the subject of interest will advise an individual on other available publications on the subject and the sources. Each state department of education generally has one or more special supervisors in agriculture, homemaking, business, and industrial education. These individuals are generally quite well informed on published materials relating to their special field of interest. They will know of any Federal publications relevant to any particular topic as well as materials produced by another state department or university. Colleges and universities usually have an extensive publications program through which the results of research are disseminated. Several state teacher education institutions operate vocational instructional materials laboratories in which teaching materials are developed and distributed; some of these laboratories also have a collection of and operate a circulating library of vocational instructional material produced elsewhere.

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[3] *Summaries of Studies in Agricultural Education*, U.S. Office of Education, Vocational Education Division, Bulletin No. 242, Series No. 59, 1950.

Summaries of Studies in Industrial Education, 1953 Supplement, Research Committee, National Association of Industrial Teacher Educators, Dearborn, Mich., Educational Services, Ford Motor Co., 1953.

Conferences and Workshops

Attendance at national, state, and regional conferences and workshops should be looked upon as a resource which will be helpful to personnel from the community schools. Many boards of education are including in their budgets an item for in-service teacher education, a portion of which is used to help finance attendance at regional, state, and national conferences and workshops. Business and industry have long ago recognized that the training of personnel is a good investment and therefore spend considerably more for such purposes than educational institutions do. It would seem to be a wise personnel policy for the community schools to include in their budgets a percentage of their instructional costs, even if only one or two percent, to help finance professional growth experiences for teachers, supervisors, and administrators.

Conferences and workshops are of three types: (1) those sponsored by educational associations, (2) those sponsored by governmental agencies, and (3) those sponsored by educational institutions.

The National Education Association with over twenty affiliated units including departments for vocational education and the practical arts has many national and regional meetings which deal with problems of vital concern to professional personnel in the community school. The American Vocational Association has divisions for agricultural, business, homemaking, and industrial education, and while the name of the association may not suggest it, the activities of the association and the annual convention program are ample evidence of the interest of its membership in the practical arts as well as the vocational fields.

State associations of teachers generally have one annual state meeting, and in several states the membership meets in county or regional groups throughout the year, sometimes in addition to the state-wide meeting. In addition to general associations there are groups formed around more specialized interests. A pattern found in a number of states is a state association for all personnel interested in vocational education and the practical arts with the association divided into several somewhat autonomous groups according to their special fields of interest.

The Federal government does not, as a rule, sponsor conferences for personnel from local community schools. They do hold conferences for state employees and college and university personnel, and occasionally a White House Conference or some other special conference will be held for school personnel in general. Conferences sponsored by state departments of education are not uncommon. Usually state department personnel are assisted by an advisory committee or state curriculum committee in planning and conducting such conferences.

Conferences and workshops for community school personnel interested in vocational education and the practical arts are frequently sponsored by teacher education institutions. Those institutions which see their role as one of providing in-service teacher education as well as preparatory training find it appropriate to provide professional growth experiences for teachers, supervisors, and administrators through conferences and workshops. These may be scheduled during weekends or vacation periods. They may be of one or two days' duration or several weeks depending upon the purpose of those in attendance. They are sometimes arranged so that college or university credit may be given those who have participated.

SELECTED REFERENCES

Hutchins, Clayton D., Munse, Albert R., and Booher, Edna D., *Federal Funds for Education—1952-53 and 1953-54*, Bulletin 1954, No. 14, Washington, D.C., U.S. Department of Health, Education, and Welfare, 1954.

State Plan for Vocational Education. (Consult your State Department of Education for a copy of the plan prepared and published by your State Board for Vocational Education.)

PART VIII

Organization and Administration

Chapter 25

DETERMINING THE NEEDS OF THE COMMUNITY

The planning of programs of vocational education deserve greater attention than they sometimes receive from school people and citizens. Some school programs of vocational education are not complete, partly because of incomplete study or lack of recognition of needs in the community. Other programs tend to become one-sided either because of loose organization or because of lack of organization. A program of vocational education does not consist of a list of high school courses installed in a curriculum as the result of copying neighboring community programs, of recommendations of teachers or administrators, or of state reimbursement policies for certain courses. A program consists of suitable courses at the secondary and adult level, the accompanying work and home experiences, and the follow-up in the occupations that have been selected because of specific training needs for prospective and present workers in occupations important in the economy of the community and/or to the citizens of the community.

The point has been repeatedly made in this book that the community-school program of vocational education must be based upon community needs. It is now our task to outline more specifically how to determine these needs. The purposes of and basic procedures for organizing and conducting a community study are followed by the presentation of a check list which can be used to develop survey forms and which may suggest other ways of seeking information. Sources of information are indicated, with suggestions for studying trends and conducting follow-up studies. Obviously, two points of view might be considered: (1) the needs of employers and society for trained workers and (2) the individual's need for marketable skills. Since the latter was discussed at length in a previous chapter the emphasis here is placed upon meeting the needs as found in the economy of the community.

Organizing and Conducting Studies of Community Needs for Vocational Education

The primary purpose of a community study, so far as vocational education is concerned, is to secure information about occupational opportunities, training needs, resources, training facilities, and individual interests and desires sufficient to make decisions involved in planning programs. These decisions must be made in regard to training prior to employment or establishment in the occupation, as well as to up-grading, or increasing the proficiency of adults. Another major purpose of the study is to determine the degree of interest, the attitude of the community, and the nature and adequacy of training already available in the community. A third important purpose is to gather information which will be useful in vocational guidance. These purposes are supported and made more specific in an analysis by Anderson of thirty-four community surveys. He found the following purposes and has listed them in order of frequency of report:

1. To determine the need for development of vocational training.
2. To provide information for planning or revising the curriculum.
3. To supply vocational information for use in guidance.
4. To discover the extent to which schools are meeting the needs of the community.
5. To determine types and number of occupations.
6. To determine labor trends.
7. To foster good community-school relationships.[1]

The survey technique is used by teachers of vocational subjects and by coordinators as an aid in determining content of individual courses. It is not this purpose with which we are concerned in the ensuing discussion, but rather the use of surveys of value in deciding what courses should be offered.

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[1] Stuart Anderson, "An Analysis of Community Occupational Surveys," Menomonie, Wisc., The Stout Institute, 1949, Mimeo, 39 pp.

Community studies for planning vocational education programs may be roughly divided into four types: (1) comprehensive studies, (2) occupational area or industry-wide studies, (3) trade or occupational analyses, and (4) follow-up studies. There are, of course, variations within each of these classifications. The comprehensive type of study will be concerned with all vocations in the community for which instruction at secondary and adult levels might be appropriate. Too often, supposedly general studies are not truly comprehensive. Sometimes they deal at length with occupational employment but ignore workers in homemaking and agriculture, as well as other self-employed groups. Sometimes surveys fail to include public-service occupations. A survey of this kind, although comprehensive in its coverage, could be relatively simple and economical. It could be merely a "nose count" as described by McPherson, to determine the number employed and to estimate the number that would be employed a year later.[2]

The occupational area study deals with one major group or area of occupations of the community as, for example, with selling occupations, with farming, or with certain trade or industrial occupations. An interesting example of this type is one conducted in Wilmington, Delaware, to improve the business education program. A citizens' advisory committee worked with school people to secure occupational information and aid in a placement program of cooperative work experience.[3] An industry-wide study would be exemplified by a survey of the vocational training needs of all workers in the oil industry or the automobile industry in a community. A trade or occupational analysis would be more narrow and would be concerned with getting a list of specific competencies needed in these trades as, for example, the building trades in the community.

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[2] Marion C. McPherson and Helen H. Randall, "A Community Counts Its Workers," *Occupations*, 26: 162–64, Dec., 1947.

[3] Leslie W. Kindred and W. Paul Allen, "Cooperation Improves Individual Schools," Chap. VI, *Citizen Cooperation for Better Schools*, The Fifty-Third Yearbook of the National Society for the Study of Education, Part I, Chicago, The University of Chicago Press, 1954, pp. 126–28.

The follow-up study is useful largely to assist in evaluation of a program of vocational education already under way. The extent of placement and the success of graduates in each line of work, however, also are important indicators of the direction which should be taken in adding, expanding, or curtailing certain areas of instruction.

In getting ready to make a community study there is some value in studying surveys made in other communities. The methods used in gathering data, including the forms used, and the methods of tabulating and summarizing will be worth noting, as well as how other steps in making the survey were carried out.[4] The state office of vocational education and the institutions of vocational teacher education in most states will be able to furnish names of communities that have conducted occupational surveys or studies of needs for vocational education, since members of their staffs are likely to have served as consultants in connection with these studies.

Most of the steps to follow in organizing and conducting a comprehensive study are recognized by school people. However, these steps are not always carried out in full, nor are the steps always taken in the way that they should be. The generally recognized steps in conducting a community occupational survey are listed. Not all of these may be important in any one survey. It will depend upon the type of survey, the purpose of the survey committee, and whether the survey is simple or involved.

(1) *Getting administrative approval.* Unless the board of education and the superintendent of schools give approval to the study it is destined to failure. A community survey must have the support of the people. It is doubtful that the people will respond favorably to one which is frowned upon by the school administration or which it knows nothing about.

(2) *Selecting and appointing an advisory or steering committee by*

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[4] Some recently published reports of community occupational surveys include those made in Holland and Mt. Pleasant, Michigan, St. Cloud, Minn., St. Louis, Mo., Trenton, N.J., and Wilkinson, Penna.

the board of education. A selection committee representing the school and community may make recommendations for membership. Some schools may already have a citizens' committee for the school. In such a case a sub-committee might serve as a survey committee. The advisory committee must be kept informed of the progress of the study at all times and its advice should be used whenever important decisions affecting the community are made. The use of the citizens' advisory committee for vocational education in the schools is discussed at greater length in the next chapter.

(3) *Making an estimate of the probable cost.* If teachers are to assist in gathering the data, the school will need to employ substitute teachers for a part of the time to enable the regular teachers to be free for interviews. Costs of printing the forms, of tabulation, and of printing the survey report all should be carefully estimated. One way of reducing costs to the school system is to use students for activities in the survey which will have educational value to them. Securing grants from community organizations, business concerns, or from foundations is another. It is also possible and wise to get consultant help from the vocational teacher-education staffs of colleges or universities, without cost to the local school.

(4) *Appointing a director of the study.* The services of a qualified person are needed to insure reliability and validity of data gathered and, if sampling is done, to use acceptable methods in drawing it. This person might be a vocational teacher, a person in a school administrative position, or a qualified citizen or volunteer worker. He should not be expected to do all of the work, but should be given primary responsibility for directing the activities of all persons who in any way assist with the gathering of information. The director of the survey should be largely responsible for development of information-gathering forms and interviewing procedures, and for summarizing and interpreting the information, once it is obtained.

(5) *Various media should be utilized to keep the public informed.* These media would include: releases to the press; discussions at public gatherings and meetings of organizations; and special bulletins or letters to parents, employers, labor and farm organizations, and other

groups and individuals. It is axiomatic that the people will make wise decisions only in proportion as they possess information needed for these decisions.

(6) *Securing the endorsement of certain organizations.* An example of this would be a local chamber of commerce endorsing a survey of training needs and trends in the distributive trades in the community. The endorsement by labor and management groups of a survey of needs for vocational education in the industries of the community might lend sufficient status to such a survey to enlist the wholehearted support and aid of persons who later would be asked to furnish the information sought.

(7) *Preparing forms.* In making a form it will be helpful to develop a list of items of information desired. Check lists of information for community study of needs in vocational education should be examined. Such a list is given on pages 397–399. It is important to avoid a form that is too long or complicated. A data blank is too long if the typical respondent lays it aside until he "has more time to answer it." The form is too complicated if a respondent becomes confused and stops supplying information or misinterprets what he is to do, or if in an interview the interviewer finds it necessary to do much explaining or is tempted to "put words in the mouth" of the interviewee. Any form that might be suggested here is unlikely to be suited to all communities, and since there are many survey questionnaires and data sheets to be found in the literature on surveys, none is included here.[5]

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[5] See, for example: Merle R. Sumption, *How to Conduct a Citizens' School Survey*, New York, Prentice-Hall, Inc., 1952; *Determining Occupational Training Needs*, Bul. 291, Lansing, Mich., Office of Vocational Education, Department of Public Instruction, 1948; R. G. Walters, *The Community Survey*, Mono. 58, Chicago, South-Western Publishing Co., 1942; Marguerite W. Zapoleon, *Community Occupational Surveys*, Washington, D.C., U.S. Government Printing Office, 1952; *Community Surveys: A Handbook of Suggested Techniques for Conducting Community Occupational Surveys and Follow-up Studies*, State College, Mississippi, Industrial Education Department, Mississippi State College, Aug., 1953; Carroll Shartle, *Occupational Information: Its Development and Application*, New York, Prentice-Hall, Inc., 1952; and John A. McCarthy, *Vocational Education: America's Greatest Resource*, Chicago, American Technical Society, 1950.

(8) *Trying out the survey forms and interview procedures.* A tryout of a questionnaire form, followed by an interview with the recipient, will make it possible to check on the reliability of the instrument and the validity of the data obtained. This tryout will enable one to discover whether there are questions that are not clear. It will also help to reveal the attitude of the respondent and to forecast the reception which people may be expected to give to the survey staff.

(9) *Securing the survey staff.* If the survey is comprehensive many persons may be needed to help. Teachers in the community school first come to mind, since they are already publicly employed. Public-minded and interested citizens, however, will sometimes help in interviews or in mailing and tabulating returns from questionnaires. For example, in an Ohio county, through cooperation of the War Manpower Commission and the United States Employment Service, 1000 persons participated in a survey covering 210 fields of work.[6] In some communities and under certain conditions it has been found that high school students can assist in soliciting data for an occupational survey. For example, in Albert Lea, Minnesota, a business survey was made by high school students who interviewed 333 firms, at a total cost of only ten dollars.[7] In another community, twelfth-grade students were used for interviewing. They reached 93.5 percent of the places designated for the survey.[8]

(10) *Training the survey staff.* There should be a clear understanding of what each person is to do, and how he is to do it. If interviews are to be made, a short course of instruction should be provided dealing with techniques of conducting interviews.[9] Interviewers should be trained to observe as well as to listen, and to record

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[6] Marion C. McPherson and Helen C. Randall, "A Community Counts Its Workers," *Occupations, the Vocational Guidance Magazine*, 26: 162–164, Dec., 1947.

[7] R. G. Walters, *The Community Survey*, Monograph 58, Chicago, South-Western Publishing Co., 1942.

[8] "A Community Occupational Survey," *American Vocational Journal*, 25: 13–14, Dec., 1950.

[9] W. V. Bingham and Bruce V. Moore, *How to Interview*, New York, Harper and Brothers, 1941.

what they see as well as what they hear. They should be briefed on the meaning of questions so they will all make a uniform interpretation of them. They should also be made aware of what kind of information will probably be considered by respondents as confidential, and what is considered to be ethical practice on the part of interviewers. Interviewers must be objective and avoid controversial discussions.

(11) *Orientation of the persons and organizations to be reached.* Persons and organizations who are to be asked for information should be assured that they will not be identified with the information that they give through survey reports or publicity. They should know in advance what questions will be asked. It also is sometimes desirable to supply copies of interview forms or questionnaires in advance for respondents to study.

(12) *Setting up a time table or schedule of survey activities.* This should include not only the time limits within which the data will be gathered, but also the time goal for public announcement of the results of the study. Data should be solicited when persons and organizations are "warmed up" to the study. The people of the community will show more interest in the survey report if it is not unduly delayed.

(13) *Writing the report.* As soon as the summaries are duplicated they should be studied by the advisory committee. This committee should assist in making interpretations and recommendations. The report should clearly point out the nature of the occupational pattern of the community and should set forth clear, concise recommendations regarding the future steps which should be taken in starting, expanding, discontinuing, or curtailing programs of specific education for preparing, up-grading, or retraining persons for work in the community.

(14) *Releasing and implementing the report of the survey.* This is an extremely important step. The survey efforts will be lost unless appropriate action is taken. Key persons in the community; representatives of labor and farm organizations, service clubs, members of the advisory committee, the school faculty; the members of the school

board; and consultants should be provided with copies of the survey report. The press of the community should be kept supplied with releases on the report of public interest. The local radio and television stations may be used to advantage to further acquaint the people with what has been learned about the community. In some instances the organizations and groups previously listed will want to have the survey results presented by someone, probably the director of the study or the superintendent of schools. They may want to discuss the recommendations. This is important and will help to implement the findings and recommendations. Ultimately the board of education will need to take action. This action should be in line with what the people of the community think and what they want. Their decision may involve expenditures and increased costs. It will probably result in curriculum change. Very likely it will result in continued or greater utilization of human, natural, and institutional resources of the community for educational purposes. So the report should be objectively and accurately prepared, and in a form, including tables and pictorial and graphic aids, that will be readily understood.

A Check List for Community Study

As previously suggested, a form for a community study of needs for vocational education should be built after considering a rather comprehensive list of logical, pertinent questions. From this list should be selected those questions which are important in the community being studied. Following is a fairly comprehensive range of questions having a bearing on community programs of vocational education.

A Check List for Study of Community Needs in Vocational Education

A. The occupational employment situation (business, industrial and public service)
   1. How many persons are usually employed in each occupation: male, female; part-time, full-time?
   2. What are the minimum and maximum ages of persons in each occupation?

3. How many persons have been separated from their employment in each occupation within the past 12 months? (Does not include temporary layoffs.)
4. In what occupations are there current shortages of workers? What are the reasons?
5. In what occupations are there qualified workers who are unemployed? What are the reasons?
6. For what jobs would employers prefer employees to have specific training prior to initial employment?
7. What kinds of vocational training do the several firms think the schools should give?
8. How many new workers have been imported from another community during the past twelve months?
9. How many residents in the community commute to work in another community? What are the jobs at which these persons are employed and what is the number employed at each job?
10. Where do employers recruit new employees less than twenty-five years of age?

B. Agriculture

1. What is the number of full-time, established farm operators in the community?
2. What is the number of persons employed at another occupation part-time and operating a farm part-time?
3. What is the number of young farmers not yet fully established as sole operators of farms? Number working in partnerships, number at home working for wages, allowance or having enterprises of their own?
4. What is the number of persons employed on farms the year round?
5. What are farmers' interests and need for adult classes in agriculture?

C. Homemaking

1. What is the number of homes in the community?
2. What is the number of married women working?
3. What is the number of unmarried women working?
4. What is the number of out-of-school young women at home and not working for wages?

D. Programs and facilities for vocational education provided by institutions and agencies.

1. What are the jobs for which organized training programs are being conducted by employers?
2. What other vocational-training agencies are there in the community? For what occupations?
3. How adequate are the programs and facilities of the community school for meeting the needs as revealed by the survey?
4. What is the financial ability of the community to meet vocational education needs?

E. The secondary school student and adult population and their interests.
   1. What are the school enrollments in each vocational course? Each course in practical arts?
   2. What is the number, percentage, and vocational choices of school drop-outs over the past 10 years?
   3. What are the vocational choices of students currently enrolled?

A few comments should be made on the relation of some of these questions to the planning of programs of vocational education. Probably the most significant single figure, from the standpoint of the program of the school, is the number of persons in each occupation. The number who are employed part time may be important in setting up cooperative training programs. The minimum ages of employees in each occupation is important for the same reason. It will also be helpful in determining at what age or grade level to place certain training. Where large numbers are found in some occupations it will probably be desirable to break these numbers down into more specific categories of jobs.

It is necessary to study data regarding specific occupations and jobs to note those that are decreasing or increasing in importance. The National Manpower Council has analyzed census data for 1940 and 1950, showing the ranking of skilled occupations by percent change in employment for this period. For example, employed mechanics increased 139.5 percent while the average of all craftsmen and foremen increased only 50.9 percent and workers such as millers, blacksmiths, tailors, and paperhangers markedly declined.[10] Some of the factors influencing trends include changes in people's habits of buying and habits of leisure, as well as mechanization, invention, and discovery. The length of occupational life is also a factor. One way of predicting numbers needed would be to divide the number employed by the estimated occupational life. A rule of thumb to determine the number of apprentices needed in an apprentice training program is to take ten percent of the number of journeymen.

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[10] National Manpower Council, *A Policy for Skilled Manpower*, New York, Columbia University Press, 1954, pp. 80–81.

The number of persons employed for the first time in each occupation will provide some indication of the trend in growth of each occupation. Although this information may be difficult to obtain, if it is combined with the number who have left the occupation in the same length of time, taken together they will constitute a rough measure of turnover within the occupation. Care should be taken to make certain that persons counted as leaving the occupation do not include those who have left one company to join another. A large turnover indicates relatively many placement opportunities. It might also indicate, however, unfavorable working conditions or lack of ability on the part of workers to perform on the job. The estimated number of placements in any occupation should serve as a guide in determining the number of students at the secondary level who should be enrolled in courses preparing for these jobs.

It is to be expected that in many occupations and for many jobs employers will not require any specific vocational education for initial employment. These occupations in which a person can obtain employment without previous experience are usually referred to as "entry occupations." As has been pointed out earlier, however, the employers in some large companies train their own beginning employees. It is necessary, nonetheless, to guard against uncritical acceptance of under-statement by employers of pre-employment training needs. Some will not realize that it might be possible to provide such training in school for certain types of work. Others will specify experience as a prerequisite to employment when they actually mean demonstrated proficiency. Actually many employers would, if they knew they could get them, prefer persons with job experience accompanied by training on the job and instruction in related subjects.

Probably most communities "borrow" persons with specialized skills from each other more than is generally realized. If an employer cannot find enough qualified workers he seeks workers in a neighboring community. If this goes on year after year it is an indication of a need for vocational education that is not being met locally. Many workers, of course, when they find jobs in another community, do not move their families, but commute to work if they live near enough to it. This fact is often overlooked by persons in charge of school programs. While certain occupations may not loom large in importance locally, if the number of residents in the community who engage in that same occupation in a neighboring community were added to the original number the total might be impressive enough to justify expansion of a training program for them.

In agriculture the number of full-time, established farm operators in the community is an important figure. It represents the theoretical number of potential members of adult-farmer classes. This number, however, could be augmented by the year-round employees on farms. Some of these, looking toward farming for themselves, will be interested in courses dealing with management and establishment in farming. The number of farms can be used to predict the number of trained persons needed annually for replacement of operating farmers. Sweany has suggested a thumb rule for determining this. He recommends taking 2.6 percent of the number farming in any given community.[11] This percentage is based upon results of mortality and placement studies. The resulting product would then need to be doubled to get the number of high school graduates needed annually, and then multiplied by five to arrive at the number of boys who should be enrolled in a four-year high school course in agriculture. A community in which there were 400 operating farmers should, therefore, have about 100 boys enrolled in vocational agriculture. Predictions of the number of prospective farmers to be trained can be made on a community basis because studies show that youth who enter farming do so in the community in which they have had their farming experience. A much larger area may be considered for other occupations because many youth will leave their home communities for employment elsewhere.

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[11] H. P. Sweany, "Estimating Opportunities in Farming," *Agricultural Education Magazine*, 22: 4–5, 22, July, 1949.

The community's needs for education in homemaking should be studied in much the same manner as those for agriculture. The most important single statistic is the number of homes in the community. These should include not just those within the corporate limits of the city, but those within the entire area that logically should be served by the community school. The number of homes is approximately the number of full-time homemakers who might be interested in adult courses in homemaking. It may be necessary to subtract from this figure the number of married women working, since they will have only limited time for systematic instruction. The unmarried women working and those living at home and not working for wages, however, are also potential or actual homemakers and should be included in estimations of courses needed in this area. It must be realized that some courses in homemaking should attract both husbands and wives. There is, as yet, no satisfactory basis for predicting what this number might be, since few communities have fully explored the interests of adults in homemaking or have offered a variety of courses to attract a very high percentage of them. Community information on such things as divorce, age of marriage, size of family, and other sociological data might be added. These are important in instructional planning by the teacher but are not essential for overall program planning.

The provisions made by other educational institutions in the community other than the school should be noted. Agencies in the community with educational programs should also be recognized. Together they may be of aid to schools in meeting the needs as shown in the survey. All the facilities of the community school should be utilized. The facilities include the courses offered; the rooms, laboratories, shops, and equipment; and the staff personnel available for vocational education. Many schools offer somewhat traditional courses at the secondary level in business, trade and industrial education, agriculture, and homemaking, without an adequate offering for out-of-school youth and adults. The existing physical facilities in these schools might not be adequate for an expanded program to serve the needs of all ages in the community. An expanded program could require additional teachers.

These eventualities introduce the problem of costs and the ability of the local community to finance expanded programs. One measure of financial ability is the assessed valuation of the district. If the district boundary and the boundary of the community are not coterminous, reorganization may need to be considered. The wealth alone should not be considered as a determinant. The per-capita wealth is a more important measure, since the greater the population the larger the program of vocational education should be. The bonded indebtedness of the school district, however, must also be considered. Due attention should be given to needs of the community school in areas other than vocational, such as for elementary school buildings, adjustments in salaries of teachers, and other increased costs. The financing of programs of vocational education is dealt with at greater length in Chapter 30.

To a limited extent, the current enrollments in courses in vocational education and practical arts are an indication of the needs for these courses. There are, however, other related factors which must be borne in mind. In the first place, if courses are lacking that relate to the student's highest occupational interest the student may enroll in a course of his second or third choice. Some students, not satisfied with the course of their second or third choice, are apt to drop out of school. These inhibiting factors must be borne in mind when the vocational choices of students currently enrolled are considered. The choices of school drop-outs must also be considered, since it is entirely possible that many of these persons would have continued in school and would have enrolled in some vocational or practical arts courses had the courses been available.

Other Sources of Information Concerning Needs in the Community

Thus far we have dealt with information concerning the community only. Such information can usually be obtained through a survey.

There are several sources of recorded information. With the exception of larger cities, however, this information is not broken down on a community basis, but rather on a state and county basis. Some data are available on a township basis. A township is hardly ever a community, but merely a political subdivision. The decennial reports of the United States Bureau of the Census, however, will furnish information which can be used to study trends in occupations, educational level of the population, school enrollments, and other pertinent information. "The Monthly Report on the Labor Force," published by the U.S. Bureau of the Census also provides information which is more current regarding employment trends and numbers in various occupations. Other sources of data regarding occupations in which workers are employed are the U.S. Department of Labor, Bureau of Labor Statistics, the Women's Bureau, and Children's Bureau. These sources as well as others just referred to will aid in gaining an overview of the employment situation in the nation and in each state and are supplementary to local community data secured first hand. Analyses of these sources by experts on statistics and occupational information are valuable as background for interpretation of local data.[12] The quinquennial reports of the census of agriculture show trends in agriculture particularly helpful in determining direction for instructional emphasis.

In some states the State Employment Service reports are available, as well as reports for the larger cities. Other sources that should be checked are the State Employment Security Commission and the chamber of commerce of the state. Some local sources that should be checked in any survey are the reports of the local chamber of commerce and local labor unions, and public utility company records. The office of the county superintendent of schools in most states contains data on school enrollments, school census, and school attendance. There are, undoubtedly, other sources of local data to be found in some communities. If the steps in making a community survey outlined earlier in this chapter are followed it is quite likely that contacts will have been made that will bring to light some of these local sources of data.

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[12] See, for example, the following: A. J. Jaffe and Charles D. Stewart, *Manpower Resources and Utilization*, New York, John Wiley and Sons, 1952; Carroll Shartle, *Occupational Information: Its Development and Application*, New York, Prentice-Hall, 1952; and *Vocational Education in the Years Ahead*, Voc. Div. Bul. No. 234, Washington, D.C., U.S. Government Printing Office, 1945.

Studying Trends

As already indicated, the recorded data relating to the nation, the states, and the cities are helpful in spotting over-all trends. It must be remembered that these data, as well as those gathered through a local survey, are usually out of date before the report of either is published. A community school program of vocational education, no matter how well planned and geared to current data, can soon become hopelessly out of line with actual needs if trends are not carefully followed. A few of the more noticeable trends will be mentioned here.

Changes in population are of great significance. Some communities are steadily losing population, while others are gaining. Some are gaining population primarily in the "fringe areas" and outlying suburbs of cities. There have been fairly large migrations from surplus labor states to shortage labor states. Rural farm population has been steadily declining in proportion to the total. There has been a steady increase in persons living on small farms and working part-time at non-farming occupations. Increases in population are usually accompanied by changes in the proportions engaged in various occupations, since work opportunities are frequently the cause of these shifts in residence.

It has been previously noted that there has been a steady upward trend in the proportion of women employed. The continuation of this trend will have profound effects, not only on the home and family, but also on the types of work available to men and women, and consequently on the types of vocational courses that should be made available to them and to young men and women in the secondary schools.

The impacts of technology on our economy have resulted and will continue to result in significant changes in the distribution of workers in the many occupations. Persons responsible for planning should note occupations that are on the decline and those that are increasing in importance. The further development of automatic and semiautomatic machinery used in manufacturing, distribution, business, farming, and the home will further accentuate some trends already taking place and may introduce new ones. These trends will include changes in the amount and kind of job training required. Will an increased amount of technical training required push much of vocational education upwards into the community college? Educators should be alert to observe a trend such as this if it develops.

School people have become increasingly concerned about school drop-outs. It should also be noted, however, that the holding power of the secondary school has been steadily improving. There is also a trend toward the requirement of high school graduation for entrance employment. We may, therefore, expect continued change in the characteristics and needs of the secondary school population.

Follow-up Surveys and Evaluation Studies

One method by which to determine whether community school programs of vocational education are in line with occupational trends is through a follow-up survey of graduates and drop-outs. Such a survey could reveal the proportion who are placed in occupations for which they received specific preparation. Placements should refer to those made upon graduation or dropping out of school, and jobs held five years and ten years later, if the follow-up survey is repeated. Additional information might be secured regarding the success of former students in their work and their reaction to it. When follow-up studies are conducted over a period of years it will be possible to trace trends in placement upon graduation.

An outstanding example of a follow-up study is that conducted under the sponsorship of the American Vocational Association at Williamsport, Penna. The area covered by this survey included the city of Williamsport and the patronage areas of thirteen high schools within a sixty-mile radius of that city. This survey was concerned with the vocational training received by the graduates while in school and after, and what the graduates thought of the training they received. The researchers studied the characteristics of the persons surveyed, the factors relating to placement and occupational adjustment, and the occupational ambitions of the graduates.[13]

The report just referred to may also be regarded in part as an evaluation study, since it sought value judgments from former students regarding instruction which they had received. The extent to which their placement has been satisfactory also constitutes a basis for evaluation. However, a complete evaluation study must also take into consideration the community and its needs for trained manpower. Such questions as these are pertinent: Are the employers able to find qualified workers in the community or is it necessary to import them from another community? Is it feasible and desirable to provide vocational education for persons to fill these positions now being taken by imported workers? Do the persons trained in the community school meet the standards of competency set by employers?

The study of a community should be continuous just as the planning of programs should be going on all the time. Changes in community-school programs of vocational education should be based upon factual information. These changes should be evaluated and further modifications made in plans to meet unmet needs or to make programs more suitable for the persons who benefit from them and for the economy of the community. The programs of vocational education in our public schools could be tremendously improved if the needs in the communities involved were to be systematically studied and provided for.

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Chapter 26

PLANNING AND EVALUATION BY SCHOOL-INITIATED CITIZENS' COMMITTEES

Interest of citizens in having local public schools originally helped to bring them into being. In recent years this interest has been made more evident by general public participation in the affairs of the community's schools. The development of school programs of adult education has stimulated this renewed interest. The recent attacks by the enemies as well as by some critics of the public schools have resulted in further activity. But fundamentally there has been a growing realization of the self-evident truth that the people of a community should accept a large share of the responsibility for making their own schools serve their needs.

The organization of school-initiated committees of citizens is but one manifestation of this growing sense of responsibility. Others include the growth of parent-teacher associations; direct assistance by organizations, agencies, and individuals; and the many informal and indirect means of cooperation. Citizens' committees concerned with one or more aspects of vocational education were pioneers in this field of community cooperation and are still more in evidence than any other kind of citizens' committees. The National Citizens' Commission for the Public Schools estimated in 1954 that there were 9000 communities where some kind of organized citizen activity in regard to the schools was going on. This chapter is concerned with committees for vocational education and practical arts.

The Place of Citizens' Committees in the Public Schools

It is becoming quite generally recognized by our educational leaders that the people had lost some of the control, or at least some of the participation in policy-making that they had in the early days of this country. The growth of our towns and cities, as well as the growth and consolidation of districts and the development of systems of administration had tended to insulate the public from its schools. Hamlin points out that:

> . . . we developed many school systems which were largely managed by professional administrators and teachers. . . . Laymen became almost unnecessary to the schools, except to furnish the students, elect a board of education, and pass on occasional bond issues.[1]

It is the desire to regain a larger degree of control over their school that has motivated citizens in many communities to take part in school affairs when given a chance. Local public control of schools is a characteristic that is distinctly American. It is a part of our democratic way of life. Thinking people, aware of the danger of losing this cherished heritage of our way of life, are eager to do what they can to make certain that the public schools remain public. Citizens' committees offer a means to do these things.

The people's interest in such committees stems from the same roots as the desire to create community schools. Cooperation on a neighborhood and on a community basis has long been an American tradition. Consolidation of primary districts to make possible a school that will more nearly meet the educational needs of a community has been brought about through citizen cooperation. Since cooperation of people within a community is the essential prerequisite for achievement of the designation of "community school" it is logical for them to organize and use the advice of committees composed of informed citizens. This brings us to a consideration of the specific advantages of citizens' committees as an effective form of citizen cooperation.

Perhaps first in importance is the fact that it has been demonstrated in many communities that citizens' committees provide a systematic way satisfactorily to utilize enlightened public opinion in the improvement of the schools. If public opinion is to be considered by school people it is essential that the opinion be utilized in an orderly fashion. Committee work provides an avenue or method for school people and school boards to use in getting help in making important and difficult decisions. If the people are asked to share in making decisions they are more likely to abide by and support them, once these decisions are made effective.

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[1] Herbert M. Hamlin, *Citizens' Committees in the Public Schools,* Danville, Ill., The Interstate Printers and Publishers, 1952, p. 3.

A citizens' committee can be a very effective medium for interpreting the school to the people. One of the first things that happen when a lay group starts to work on an educational program is that the members soon learn a great deal about what is actually happening in the school. Since the activities of a committee representing the people are newsworthy, the community can more rapidly become informed about its school. Much information will be passed on by word of mouth. If the advisory body continues for some time, and members are retired as new members are appointed, there is soon a growing group of people who not only know what the schools are trying to do, but who also are more sympathetic to problems faced by educators. A corollary of this advantage is even more important. The committee may be considered in one sense as a sounding board for the people. If members are wisely chosen they will have the confidence of the rank and file of the citizens, who in turn will report to them their hopes and aspirations as well as their complaints and problems. So a committee could reflect the interests, the needs, and the attitudes of the people. It could, of course, reflect strong prejudices as well, if they existed.

In any community school, when there is planning and evaluation to be done, information must be secured in the community from a variety of sources. If surveys or other studies are conducted by school people, their acceptance and status are likely to be considerably improved if such studies are recommended, have been approved, or have been developed in part by a representative group of community people. A correlated advantage is that when new school programs or projects are undertaken, teachers will be inclined to put their best efforts into these activities, confident of the wholehearted interest and approval of the people. An example of these advantages is cited by Kindred and Allen in the case of the Advisory Committee for Cooperative Office Training of Wilmington, Delaware. This committee helped to sponsor a successful occupational survey and developed plans for improvement of business education which were placed in effect. They concluded: "This partnership between school and community not only provided a democratic way of developing a functional program in business education, but also provided an interpretative technique for securing community support." [2]

In general, it can further be said that the people eventually make greater use of their schools where there is an orderly arrangement for citizen participation in planning and evaluation. For example, a common development is the expansion of adult education opportunities as the planning committee becomes more aware of the potential utilization of facilities and the unmet educational needs of those not enrolled in school full time.

Why Citizens' Committees for Vocational Education and Practical Arts

All of the advantages of using continuing citizens' committees, so far as the total school program is concerned, apply to the role of committees for vocational education and practical arts. In addition, there are a number of reasons why, in planning and evaluating this large area of the program of the community school, this type of citizen participation should be encouraged.

The first of these is that we have had experience with such committees for vocational education over a relatively long period. Lay councils for advisement in regard to programs of vocational education were among the pioneers. As early as 1913 Indiana had a law authorizing trustees and boards of education to appoint advisory committees for vocation education. Some of the earlier lay committees dealt with a specific subject such as an adult class in agriculture or related instruction for machinists, but others were concerned with preparation for both prospective and employed workers in an occupational field. Now we find committees helpful in suggesting local policies for the operation of entire programs of vocational education.

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[2] *Citizen Cooperation for Better Public Schools*, The Fifty-Third Yearbook of the National Society for the Study of Education, Chicago, The University of Chicago Press, 1954, Chapter VI, pp. 127, 128.

A second and very important reason is that educators can thereby get valuable help from persons in the community on selection of content for vocational courses. Such persons can, through this orderly provision, help the people in the community school to develop a vocational and practical arts program that is based upon needs as the people find them. Vocational education, possibly more than any other area of the community school, must be a cooperative endeavor; therefore the school people need the layman's advice and active assistance in planning. This suggests a third purpose or advantage, namely the promotion of two-way communication between the school and people engaged in the work of the farm, the home, industry, and business.

Another important advantage is that of protection for the instructional staff. Vocational education and practical arts is an area in which there have been, and still are, a number of untried activities and controversial issues. Teachers should not be drawn into debates or activities where they must defend themselves. A citizens' committee could take school people "off the spot" if necessary.

A fifth reason for lay advisory committees is that they can help to correlate the work in vocational education with educational programs of other agencies and organizations. Included in these organizations are the labor unions, the farmers' organizations, the service clubs, business or industrial groups, and others. Important agencies include the Cooperative Extension Service; the several governmental agencies in agriculture, commerce and labor; as well as state and local agencies in this area, as, for example, employment services. Because of close working relationships with these agencies, laymen are in a good position to aid in bringing about better school relationships.

There is a constant turnover of teachers of vocational education and practical arts in the school. Many organizations and agencies compete for their services. Whenever a teacher leaves a school and a replacement is made there is no reason why the program or the nature of the courses should change, if they were soundly organized in the first place. A citizens' committee can help to provide continuity through a change of teachers.

A subsidiary advantage of lay advisory committees is that they are in a strategic position to promote adult classes in vocational education and practical arts. The members of such committees should include persons who would be members of such classes. While the teacher of a course for adults may feel that he cannot gracefully recruit adult-class members, such a committee can, if it is vitally interested in the course, give a much needed boost to the enrollment.

Kinds of Committees Needed in the Schools

There are two schools of thought on the status and permanence of citizens' committees for the schools. On the one hand, there are those who favor the creation of a committee only when there is some relatively large project to be considered or problem to be solved. Examples of such concerns are planning for new school buildings, putting across a bond issue, making a survey of needs for vocational education, or planning the start of a junior college. This school of thought holds that when the major project is finished the committee should be discharged. There sometimes is apprehension lest the committee become too strong and usurp some prerogatives of the board of education. This school of thought believes that only certain matters—previously selected by the board and/or the administrators—may be considered, and rules out the idea of citizens originating questions to be dealt with.

The other school of thought regards the raising of any relevant questions concerning the school program and its improvement to be a right which should be vested at all times in the people to whom the school belongs. It further holds that if the people are to exercise this right they should have a means for doing so at any time. This means that a citizens' committee should be a continuing body even though the board of education has the right—in fact, it has the obligation—to do away with the committee if it departs from its charter. Of course, the individual members of the committee would have a definite term; thus the make-up would gradually change from year to year.

The authors of this book subscribe to the second school of thought. They do not rule out the creation of temporary committees to advise on temporary problems. It is recognized, furthermore, that citizens' committees might have several sub-committees at work at various times and in a more concentrated manner on problems on which the committee as a whole can not afford to spend all of its time. But, if long-time plans are to be developed, if school programs are to be continuously evaluated, then a more permanent type of advisory group organization is called for. This will become increasingly clear as the organization and functions of citizens' committees are detailed in this chapter.

The kinds of committees needed in the schools will vary with communities. These committees will also vary with the size of the school system. The occupational pattern of the community and the social and economic needs of the people also will affect the types of committees that will be needed. Figures 3, 4, and 5 illustrate types of committees for different sized communities.

A variation of the general citizens' committee would be one on the school curriculum, with further possible breakdown into elementary and secondary curriculum. If a general committee on vocational education did not exist, as illustrated in Figure 3, the committees could actually be sub-committees responsible to the general citizens' committees. There could, of course, be a general council for vocational education in a medium-sized school *in addition* to an over-all, or general committee. In a medium or large community where no citizens' group had previously been organized for vocational education it might be well to start with a general vocational committee, which could then encourage formation of other specific-area vocational committees. It is not recommended that a whole array of

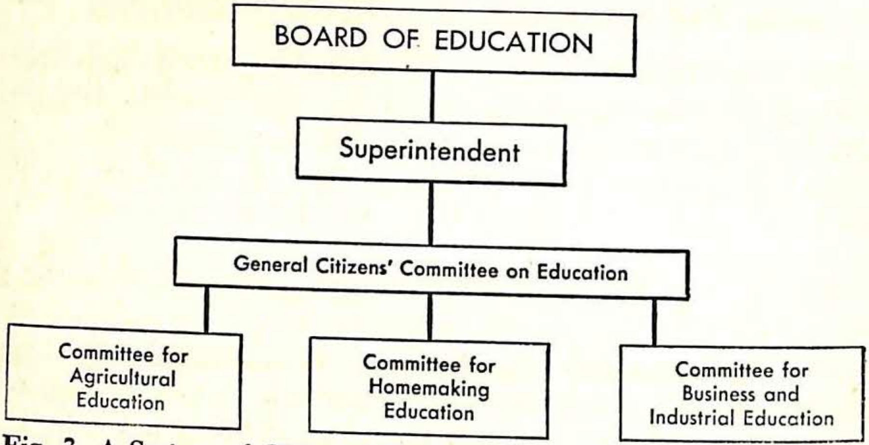
BOARD OF EDUCATION
Superintendent
General Citizens' Committee on Education
Committee for Agricultural Education
Committee for Homemaking Education
Committee for Business and Industrial Education

Fig. 3. A System of Citizens' Committees for Vocational Education and Practical Arts in a Small School.

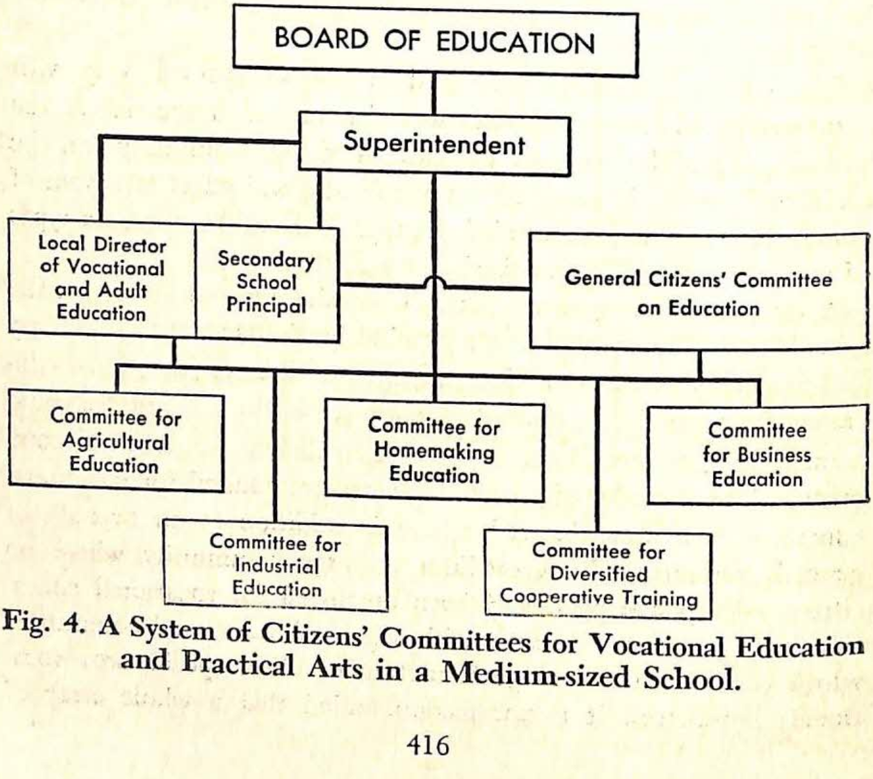
BOARD OF EDUCATION
Superintendent
Local Director of Vocational and Adult Education
Secondary School Principal
General Citizens' Committee on Education
Committee for Agricultural Education
Committee for Homemaking Education
Committee for Business Education
Committee for Industrial Education
Committee for Diversified Cooperative Training

Fig. 4. A System of Citizens' Committees for Vocational Education and Practical Arts in a Medium-sized School.

specific committees be launched at the outset. The diagram in Figure 5 merely illustrates possibilities as to type, and suggests interrelationships. In a small community it might be best to start first with one advisory council such as a committee for agricultural education.

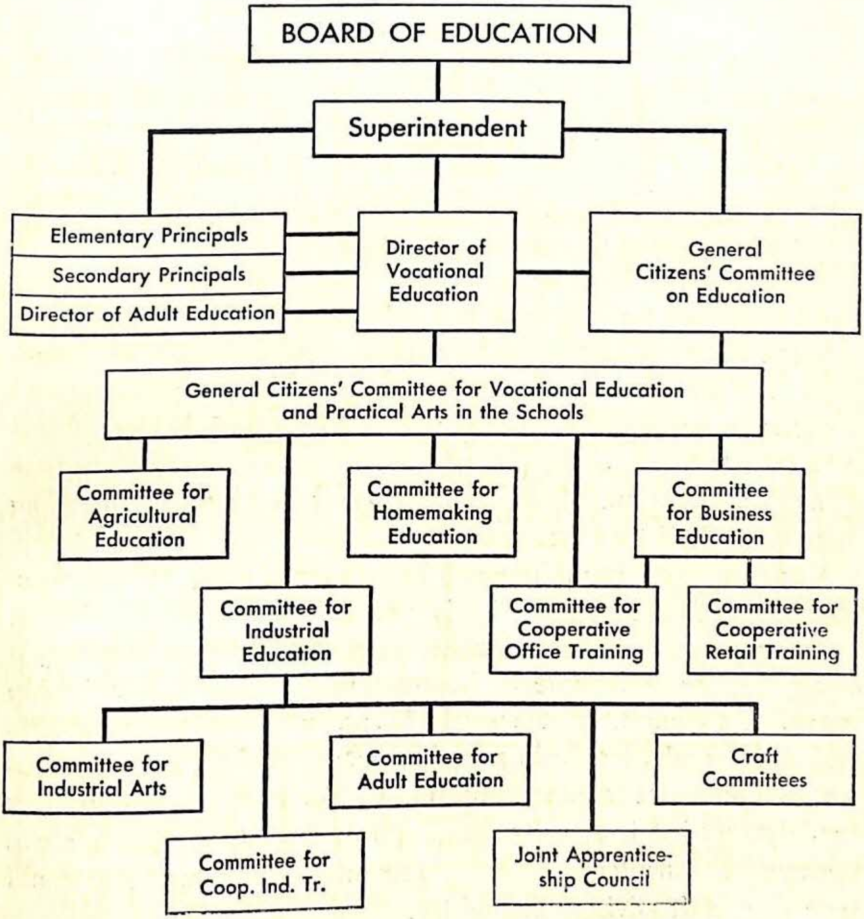
BOARD OF EDUCATION
Superintendent
Elementary Principals
Secondary Principals
Director of Adult Education
Director of Vocational Education
General Citizens' Committee on Education
General Citizens' Committee for Vocational Education and Practical Arts in the Schools
Committee for Agricultural Education
Committee for Homemaking Education
Committee for Business Education
Committee for Industrial Education
Committee for Cooperative Office Training
Committee for Cooperative Retail Training
Committee for Industrial Arts
Committee for Adult Education
Craft Committees
Committee for Coop. Ind. Tr.
Joint Apprenticeship Council

Fig. 5. A System of Citizens' Committees for Vocational Education and Practical Arts in a Large City School System.

A general committee on vocational education also might or might not be concerned with practical arts, but it is recommended that the two be the joint consideration of one lay group. Likewise, a committee for agriculture should be concerned with the program of general agriculture as well as vocational agriculture. And a committee on business education should be concerned with instructional programs in general business for all pupils. In many schools it will be advisable to have a committee for each of the departments in the school concerned with vocational education.

It will be noted that the terms "citizens' committee," "advisory council," and "advisory committee" are used somewhat interchangeably or synonymously. There may be objections on the part of some boards of education to the term "advisory." However, the term has been used a great deal in relation to vocational education for a number of years. The name of a council really is not very important. It should adequately describe or identify the committee, but it should also be one that is meaningful and acceptable to the public.

A council for industrial and business education would be appropriate in a small or medium-sized community. In a large community it might be desirable to establish two or three councils, one to deal with industrial education, one with distributive education, and one with office education. There should, however, be coordination among these councils if they are separate.

A craft advisory committee will be concerned with just one occupation, craft, or group of closely related trades such as printing, building trades, or auto mechanics. There would be no comparable committee for agriculture or homemaking. A joint apprenticeship council is a committee composed of representatives from employers and labor to advise regarding establishment, conduct, and standards for an apprentice-training program. Unlike the other committees here described it is actually administrative in nature. This role was discussed in Chapter 20. A joint apprenticeship council also could serve as a craft advisory committee.

Questions of Policy on Which Advice Should Be Sought

We turn next to further consideration of what a general vocational advisory committee should do. There are several kinds of questions with which such committees might properly deal. One of these is questions of policy. The local board of education is legally charged with responsibility for establishing policies for the operation of its schools. Advice, however, regarding policies can and should be solicited from the citizens of the community. Thus, the vocational advisory committee should make recommendations to the board regarding local policies for the programs of vocational education and practical arts. Following are some of the questions of policy with which either a general vocational advisory committee or a subsidiary committee such as one listed in the preceding section might concern itself.

1. Who are the people to be served through the program? What are the boundaries of the population to be served? Should adults and out-of-school youth be included?
2. For which occupations or occupational areas should the school assume an active part in providing preparation, in-service training and/or re-training?
3. What policies should be followed in admitting or screening students for vocational classes?
4. What share of the costs of vocational education should be borne by students, and by local district? Should state and/or Federal funds be used?
5. On what basis should the effectiveness of vocational courses and practical arts courses be judged? What should be the general aims or objectives of these courses?
6. What subsidiary committees should be recommended? How should their activities be coordinated?
7. What coordination should be established between programs of vocational education and practical arts?
8. What problems should be studied by the committee and by subsidiary committees?

These questions might not all be classified by school people as those dealing with policy. But they are fundamental questions concerning the general framework within which instruction leading to occupational competence should operate. The board of education has the responsibility for informing the advisory committee of the policy questions on which it wants advice.

Principles and Practices in the Use of Citizens' Committees for Vocational Education and Practical Arts

Successful citizens' committees don't just happen. They require careful planning and attention, as well as assistance by school people. Well-intentioned starts with such committees could lead to failure unless basic principles and practices are followed that have been found through experience to be of value. The principles and practices given here are the result, not alone of first-hand acquaintance on the part of the authors with successful committees, but also of extensive experiences represented in the literature, selections from among which are found at the end of this chapter. The organization of a vocational advisory committee involves authorization, qualifications and number of members, selection procedure, and method of appointment. Before anything else is done, the board of education must authorize the formation of a committee. At the same time, or soon thereafter, it probably should set forth the committee's operational policies or the framework within which the committee would be expected to function. Such a statement will help to avoid embarrassment to the board or to the superintendent. The board should clearly state the purpose of the advisory committee; the number, method of selecting, and terms of members; the relations of the committee to the board, the school faculty and the citizens; and the general method of operation.[3]

Some citizens' committees are organized with too small a membership. A few have been too large. The more successful committees have had from twelve to twenty members. The number should bear some relationship, however, to the size of the community which the school serves. The type or purpose of the committee will also govern the size. A craft committee might well be smaller than one concerned with the total program of vocational education. The qualifications of members are extremely important. Interest in the school program and willingness to serve are, of course, essentials. Another important qualification is status. The committee member should be one in whom the people have confidence and whose judgment they respect. He need not be outstandingly successful, but he should be well acquainted and experienced in the occupation or occupations to be dealt with by the committee and interested in the work of the community school. The committee member should not be chosen to represent any one community organization or agency. He will, thus, answer for people rather than for an organization. Employees of governmental agencies will be valuable consultants but should not be asked to serve as advisory committee members. The members of an advisory council for agricultural education should be selected with due consideration to geographical representation, to types of farming, and to farming status—that is owner, renter, partner, hired hand. Women as well as men should be considered on every committee. In a committee for business and industrial education representation of kinds of businesses and/or industry should be considered. Membership should be drawn both from management and labor. No member of the committee should be chosen, however, to represent or be a spokesman for a single firm or organization. A common mistake is selecting the "institutional" leader, that is the person who holds an office in an organization or who holds some other type of titled leadership position. Rather, the "informal" leader is the one we should seek, the person who is not necessarily already too busy with other matters, who commands the respect and confidence of his neighbors, and who is close to the people.

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[3] For detailed suggestions regarding policies, see Herbert M. Hamlin, *A Charter for a School-Sponsored System of Citizens' Committees*, Urbana, Ill., Office of Field Services, College of Education, University of Illinois, 1953.

Local school personnel should be given considerable responsibility by the school board for the selection of nominees to membership on the advisory committee. They should solicit names from a wide variety of sources, including a good cross-section of the citizens. This work can be done by an authorized selection committee or by the members of the school staff in vocational education and the administrative staff as they make contacts associated with their regular work in the community. One authority suggests that at least 50 persons be asked to suggest nominations. If each one approached suggests several names it will be possible to develop a good master list for screening. Nominees suggested by several persons should be seriously considered. Persons to be selected for nomination should meet criteria previously set up. In addition to qualifications previously mentioned in this chapter, it also is desirable to consider such others as age, nationality, whether parents of children in school, and adult-class membership.

If the vocational staff or a selection committee has been given the responsibility for submitting to the board the nominations for membership, this staff or committee should carefully screen the suggested names and submit to the board those of enough persons to constitute the advisory committee as outlined by the board. A few additional names could also be suggested as alternates who might be used if some nominees do not accept appointment. The official naming of the members of the committee by the board should be followed by a letter sent to each member requesting his acceptance, explaining the purposes of the committee and giving some details regarding the expected duties of the committee members. This letter should be followed up by personal contact on the part of the members of the selection committee or vocational staff. At this time, and after acceptance by the members of the advisory committee, it will be appropriate to announce publicly the appointment of the committee through official action of the board, and to supply information relating to the purposes and function of the committee. At the first meeting of the advisory committee it would be desirable to have a member of the board or the superintendent of schools preside as temporary chairman until officers can be elected and to explain further the duties of the committee and the role of its members.

The methods of operation of the citizens' committee must be given careful consideration in order for the committee adequately to fulfill its function. Officers should include a chairman or president, a vice-chairman, and a secretary. Since members of the school staff and the school board will not be members—other than in an ex-officio status—they are obviously ineligible. Most newly elected officers will need and welcome help that the school staff should give regarding conduct of meetings, and democratic group processes. The staff member most closely identified with the committee should assume responsibility for assistance in setting up the agenda for meetings, preparation of reports, and other professional jobs. He should attend all meetings of the committee. The term of members should be determined at the first meeting and a rotation scheme set up with a definite number retiring each year, to be replaced by new members. No member should be allowed to succeed himself, but might be re-appointed after a lapse of a few years off the committee. At the first meeting, the committee should decide on the frequency and place of meeting. In order to accomplish as much as will be expected of it, an advisory committee should meet frequently. Some committees meet monthly, at least for the first year or two. Usually there is an advantage in holding meetings in a classroom used for vocational or practical arts classes. Publicity regarding the activities of the committee should be handled through the regular publicity channels of the community school. There should be free communication, however, between members of the committee and citizens. This is essential if the committee member is to take "soundings" of the people's attitude on crucial issues and if he is to keep his ears tuned to expressions by the people of their interests and needs. For example, the members of a committee on agricultural education might wish to get attitudes of the people in regard to a school farm. An industrial education committee might need to know employers' attitudes toward a proposed cooperative training program. Complete minutes of all meetings should be taken and made available to the board of education as and when they are desired. Periodic reports also should be given, as well as reports of major activities or projects of the committee. The financing of the committee will usually not be a problem. Inasmuch as the committee is school-initiated, the school should bear the costs, which will usually be nominal.

The foregoing procedures apply in a general way to all citizens' committees and to committees for vocational education and practical arts of the several types. The questions to be dealt with will depend on the type of vocational committee involved. Some of the questions with which many types of committees for vocational education might be concerned are listed here. These are suggestive only, but represent actual questions with which such advisory committees have dealt.

1. What is the nature and extent of the present program of vocational education and practical arts?
2. What is the community's attitude toward the program?
3. What are the vocational education needs in the community?
4. How can a survey be made to study the needs?
5. What are the most likely future trends in community needs?
6. What should be the objectives of the program with which this committee is concerned?
7. What emphasis should be placed on various aspects of each occupation?
8. How should each vocational program be correlated with related community agencies?
9. How well is the existing vocational program meeting our needs?
10. What are some effective ways by which the public can become better informed regarding its school's vocational programs?
11. How can employers and schools work together to place students?
12. How can we locate farming opportunities?
13. How can we recruit members for adult classes?
14. Where can we find persons with successful experience in specific occupations to teach certain adult classes?
15. How should facilities for vocational programs be improved?
16. How can the school's shops and laboratories be made to serve a larger segment of the people of the community?
17. How should the program of practical arts be expanded to include other phases than industrial arts and homemaking?

Evaluation by Citizens' Committees

The importance of evaluation in the improvement of instruction in vocational education and practical arts was pointed out in Chapter 21. A citizens' committee for one of these programs in the local community can assist in carrying out each of the major steps in the evaluation process.

An advisory council should discuss the specific needs which should be met by the program on which it has been asked to advise. When it does, it is entering into the first stage of setting up objectives, whether it realizes it or not. With help from the professional educator a committee will eventually be able to describe what it believes should be the results of instruction in the area under consideration. Examples of statements of this type might be: "Young men should be helped to get a good start in a farming business": "Some of our youth should be ready to hold down good jobs in our stores"; "A girl should be able to take over certain responsibilities in the home before she finishes high school"; or "The printers in this community should be helped to keep up to date on new materials and techniques." School people should break down statements such as these into more specific objectives to which the council can react. These specific objectives should be the ones on which evaluation is based.

Council members will be able to suggest some of the kinds of evidence to look for in determining whether these objectives are being attained. Teachers should suggest others. Examples of evidences of attainment might be: increases in investments in farming by students in agriculture, expressed employer satisfaction or dissatisfaction with students' work on a cooperative training program, achievements and accomplishments of homemaking students in the home, or improvements in work done by local printers.

The work of devising instruments for collecting evidence logically falls to teachers of vocational education and practical arts. They should be assisted by the superintendent, the principal, or the local director of vocational education, depending on the administrative structure of the school. These instruments might include forms for periodic recording that would be summarized in annual reports to the board and that the council could then see and appraise. Other instruments will be needed to survey employers' attitudes toward vocational programs; the satisfactions of graduates and adult enrollees; or the practices followed by trainees on the farm, in the home, or in business or industry. The council should be asked for advice on the use of such instruments. It can be of aid in supporting the requests for information that may be made of employers, employees, and parents in the community.

Chapter 27

PERSONNEL POLICIES

The teacher is the most important single factor bearing on the effectiveness of any part of the community school program including vocational education and the practical arts. Therefore, the selective recruitment and retention of a sufficient number of capable teachers in this area of the school's program should be recognized as one important administrative function. Teachers must be satisfied in their work or they will not stay. They must be encouraged to feel that they are an integral part of the community school and that they have equal status with other teachers in the system.

Recruitment and Selection of Teachers

This nation has had a shortage of teachers ever since the beginning of World War II and is faced with a critical shortage in the foreseeable future. The inadequate supply of well-qualified teachers is not new in the field of vocational education and practical arts. In fact, there seldom has been a time when certificated teachers in this field could not find employment in the schools. In the year 1952–53 there were 31,558 teachers of high school classes in vocational agriculture, homemaking, vocational industrial education, and cooperative programs of distributive education, all reimbursed through Federal vocational funds.[1] In addition to these are the uncounted thousands of teachers of business courses and industrial arts, as well as of courses in agriculture and homemaking in schools not reimbursed. Normal turnover in these positions naturally creates demands for newly qualified teachers. But in addition there are several other factors that reduce the supply of qualified teachers of vocational and practical arts subjects beyond those which affect the supply of all teachers for our public schools.

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[1] *Digest of Annual Reports of State Boards for Vocational Education to the Office of Education*, Division of Vocational Education, Fiscal Year Ended 1953. Washington, D.C., U.S. Department of Health, Education and Welfare, Office of Education, 1954, p. 13.

In the first place, there are fewer institutions in each state adequately equipped and staffed to prepare teachers of vocational subjects than of other subjects. In most states the state agricultural college is the only one prepared to educate teachers of vocational agriculture. In all states some institutions preparing other teachers do not have the laboratories and shops necessary to prepare teachers of homemaking, industrial arts, and business subjects.

Some leaders in teacher education point out that there is no shortage of certificated teachers, only a shortage of certificated teachers willing to take teaching positions. A very strong factor in times of full employment is the competition for persons with specific training and vocational experience. This competition comes from industry, state and Federal agencies, business, and other employers. The teachers of vocational courses are not qualified unless they are capable of filling a working position in the vocation for which they are preparing their students. It is probably safe to say that most teachers of vocational education and the practical arts could at almost any time find other employment (in a non-teaching position) at a salary greater than what they are receiving as teachers.

By the same token, there undoubtedly are many teachers in other subject areas who would be willing and available to fill the position of vocational teacher if they possessed successful experience in an occupation for which the community school provides preparation. But so long as great numbers of teacher candidates enter and continue in college immediately after graduation from high school without working at some other occupation, this practice will contribute to the short supply of teachers of vocational courses. Several colleges and universities now offer cooperative programs for preparation of voca-

At least once a year the advisory committee probably should spend a major part of a meeting in passing judgment on the program or programs with which it is concerned. The vocational and practical arts teachers should prepare for such a meeting by again listing the specific objectives of the program and assembling evidences on the extent to which they are being or have been attained. The members of the committee should then be in a good position to judge the program and to suggest new objectives or changes in emphasis.

School people should never be afraid of evaluation by advisory committees. They should welcome it because it will help not only to pave the way for improved instruction but also to develop in the community a degree of understanding and support for vocational education and practical arts that would be difficult if not impossible to get in any other way.

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tional industrial teachers or coordinators. In these programs industry helps in the training by employing students part-time. The students learn the skills on the job that are not taught in the university through planned work experiences and related instruction.

A factor contributing to the shortage of vocational teachers is the fact that many college students interested in teaching have not themselves previously had vocational and practical arts courses in high school. Those who lack this background are not likely also to have a major interest in agricultural, homemaking, or industrial education, and, thus, would not qualify to teach these subjects. Students who have taken vocational courses tend, rather, to enter the occupations for which they were trained rather than to enter institutions of higher education.

Some persons who counsel high-school and college students regarding vocational choices may not have all the information needed regarding the opportunities in the field of teaching vocational education and the practical arts. School counselors and others in community schools need to realize that recruitment of teachers for these fields should be carried on largely at the local community level, and that they have a responsibility for aiding in this effort.

In the past it has usually been necessary to recruit teachers of vocational industrial education directly from employment and to develop a program of in-service education to qualify them for teaching through the help of an institution of teacher education. In states in which there are programs of cooperative industrial teacher education, more prospective teachers can be recruited from among college students. As was pointed out in an earlier chapter, the occupational experience of the teacher is an important factor in making instruction vocational. School employing officials should, therefore, evaluate the experience possessed by teachers in all vocational departments. Teachers should be sought who possess the qualifications needed for the kind of departments which the community wants in its schools. Teachers of vocational education and practical arts should be just as well prepared professionally as any other teachers on a school faculty.

Multiple-teacher departments are increasing in agriculture and are becoming quite common in homemaking, excepting in smaller schools. Attention should constantly be given to the load of teachers to determine whether an additional teacher is needed. A teacher who has a full load of students in the high school should not have to engage in overtime work. Additional teachers should be employed when necessary for the extra work of an adult program.

Special Certification of Teachers of Adults

For several reasons, teachers of adults in vocational education and practical arts quite commonly may be persons who are not teachers by profession but who are successfully employed workers, farmers, or homemakers. Not only may the regular teachers of a given subject area have a full load in the secondary school program, but also special skills or a high degree of occupational skill may be called for which the regular teacher ordinarily does not possess. Examples of such specialties might be tool-and-die design, farm welding or wiring, textile painting, or upholstering. Through the help of an advisory council it usually will be possible to locate successful workers in these and other occupations who can be given a special certificate to teach courses for adults. This practice has proved workable in all fields of vocational education and practical arts.

Persons who are selected for teaching skills to adults must not only possess the skill that they are asked to develop in others. They should also possess those personal qualities that we look for in any teacher. They must be interested in people and in helping them to learn to do those things that these people want to learn. They must have patience, tact, and the ability to tell what they know and to show what they can do. They must be able to explain practices and principles so they will be understood by the adults they teach.

Those who have been selected to teach will need special instruction in how to plan for teaching, how to lead discussions, how to select relevant subject matter, how to determine whether the student is learning, and how to identify their own instructional problems.

Both the regular vocational teacher and the local administrator can be of help in this task of in-service, professional education.

Another type of teacher that will be needed in larger programs of vocational industrial education is the teacher of related subjects, such as shop mathematics or science, or business English. These teachers should be regularly certificated teachers who have had sufficient vocational experience to enable them to relate their instruction to practical working situations.

Employment Conditions, Salaries, and Special Requirements

Studies of factors related to tenure and length of service in the profession show that employment conditions affect satisfaction in the profession and tendency to remain in it. Teachers, administrators, and lay persons in the community should be interested in improving conditions to make possible greater tenure of teachers of vocational education and practical arts. The special conditions and circumstances of these teachers should be understood by all.

Teachers of vocational agriculture are employed on a twelve-month basis. Homemaking teachers in some states are employed during part or all of the summer. Coordinators of cooperative training also are usually employed on a twelve-month basis. Since other teachers in the same school system ordinarily are employed only for the academic year, the vocational teachers just referred to will or should typically receive higher annual salaries than other teachers. It is highly important that teachers who are employed during the summer keep the administration, the other teachers, and the public informed regarding their summer duties and activities.

Teachers whose work requires travel should be reimbursed for their professional driving. Especially important in this category are teachers of vocational agriculture who will travel several thousand miles each year visiting farms of students. Teachers of homemakers visiting homes of students, and coordinators working with employers in supervision of students working part time will also have to travel.

One of the more difficult things for a school staff to understand is why teachers of vocational courses should receive salaries higher than they. The importance of experience in the occupation frequently has been pointed out in this book. It has not always been possible, however, to find enough teachers in vocational education to fill the needs. Partly for this reason, some salary schedules allow partial substitution of vocational experience for teaching experience. For example, a beginning teacher of machine shop who is an experienced machinist might be credited with two years of experience, and thus start with the salary of a non-vocational teacher who has two years of teaching experience.

Another condition that is sometimes difficult to understand is the load of vocational teachers. Classes in vocational education and practical arts are usually smaller than those in other subjects. There are several reasons for this fact. Some equipment is expensive and cannot be made available in sufficient amounts for larger classes. All instruction in vocational education and the practical arts involves a great deal of individual work with students, whether it be at a lathe, a motor, a milk tester, a unit kitchen, an office machine, a laboratory table, or a study table. Consequently, the size of class must be adjusted to the available facilities. In the case of students of agriculture, homemaking, and cooperative training, the teacher or coordinator must spend a great deal of time with individual students on the farm, in the home, or at their work stations. Thus, the total number of students that a vocational teacher or coordinator can take care of in this manner is limited by the amount of out-of-class time available. The fact that class periods for these kinds of courses are longer than for other subjects naturally reduces the total number of students that will be instructed by a teacher within a school day. The student-teacher ratio for teachers of vocational and practical arts subjects will, therefore, almost always be smaller than that of other teachers, and in some cases a great deal smaller. Many vocational teachers in secondary schools will have time allocated for adult education. A survey of 329 representative teachers in the Central Region conducted by a committee under the direction of one of the authors revealed that

56.7 percent of the teachers of agriculture were released from scheduled activities for one or more periods near the end of the school day that were to be devoted to conducting adult classes.

Because of the nature of scheduled and unscheduled activities of most vocational teachers, the student-teacher load as usually computed for teachers in the secondary school should not be used to evaluate their load. It is true that the 1950 revision of the Douglass formula for teaching load [2] recognizes the difference for agriculture to some extent by allowing a coefficient of 1.3 and for homemaking by allowing 1.1 compared to 1.0 for most other courses. There is no coefficient in the formula listed for vocational industrial teachers and coordinators, although a coefficient is given for a duplicate section. It is questionable whether the formula for teachers in vocational fields actually reflects the true situation if the load of a teacher involves adult classes, since the Douglass formula is designed for secondary education. Rather than to make comparisons of loads of these teachers with others, school administrators should admit the inescapable fact that these types of education cost more than some others. This fact is one reason for the Federal and state subsidization of vocational education that has been provided for nearly forty years. It is a basic reason for continuing such support and for expecting administrators to seek it.

One of the more serious mistakes made by administrators in connection with teacher loads is that of "building up" the load with nonvocational assignments. Such assignments might be a study hall, a class in another subject area, or an additional out-of-class assignment. Let it be said here, parenthetically, that every teacher, regardless of subject, should accept his share of total-school assignments the same as any other teacher. However, if such assignments interfere with individual vocational instruction as described in the preceding paragraph or with essential adult classes they should not be made. It is poor economy to use the time of a specialized teacher, one who may be difficult as well as costly to replace, for the discharge of functions which can be done just as well by someone else.

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[2] Harl R. Douglass, "The 1950 Revision of the Douglass High-School Teaching Load Formula," *The Bulletin of the National Association of Secondary School Principals*, 35: 13–24, May, 1951.

It is, likewise, poor economy to employ well-prepared teachers of vocational education and practical arts at good salaries and then fail to provide adequate facilities and materials of instruction, so that they cannot do the high quality teaching of which they are capable. Much of the turnover of teachers of vocational subjects has been due to the inadequate facilities and poor working conditions. This was amply brought out in a study by a committee of the American Vocational Association of the factors related to satisfactions of home economics teachers.[3] Teachers who had other subjects to teach than home economics were less satisfied than those who taught nothing but home economics. Those who were teaching in laboratories equipped to teach all phases of home economics were better satisfied than those whose laboratories were equipped to teach only foods and/or clothing. There was a significant, negative correlation between satisfaction and teaching load. The least satisfied teachers had no supervision. There was a direct relationship between satisfactions of home economics teachers and suitable living arrangements and salary. It should be fairly obvious that one way to lower the turnover and conserve the insufficient supply of competent teachers of homemaking would be to improve some of these conditions. A Michigan study by Clark showed that teachers of agriculture who left the profession did so because of a better opportunity to advance elsewhere, a better salary, or more security. Those who remained were more apt to have taught adult- and young-farmer classes. Other studies which he reviewed supported his findings and showed a relationship between working conditions and tendency of teachers of agriculture to remain in the profession.[4] The well-qualified teachers of vocational subjects should be encouraged to continue in the profession. Good facilities and working conditions should aid in this effort. Vocational teachers typically are faced with considerable clerical work with records of supervised farming, home experiences, the securing and duplication of instructional materials, and the making of reports. The teacher's time can be saved for more important instructional activities through provision of clerical help.

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[3] *Factors Affecting the Satisfactions of Home Economics Teachers*, A.V.A. Research Bulletin, No. 3, Washington, D.C., Committee on Research and Publications, American Vocational Association, 1948.

[4] Raymond M. Clark, "Factors Associated with Decisions of Michigan Teachers to Remain in or to Leave the Field of Teaching Vocational Agriculture," Thesis, Ed.D., Library, Michigan State University, East Lansing, Michigan, 1950, p. 138.

Staff Relationships

If unity of the program of the community school is to be achieved there must be a feeling of unity in the staff of the school. The nature of the subject taught should not set any teacher apart from others. Neither should the fact that the school is reimbursed for a portion of his or her salary by special funds. Sometimes there has been a tendency on the part of vocational teachers to feel that they were responsible to a state department of vocational education rather than to the local school administration, or that they were entitled to some kind of preferential treatment. Such an attitude would be unfortunate in any school system in which it prevailed. All teachers should have a good understanding of the objectives and nature of all programs in the school. They should be able to see how their own work contributes to the major aim of the entire system. School administrators and supervisors can do much to develop morale and a spirit of cooperation among teachers of vocational educataion and practical arts and among all teachers.

One of the results of discussion and cooperative work by vocational teachers on their special problems has been the development of professional organizations. The largest of these is the American Vocational Association. This organization has affiliated state vocational associations which, in turn, have affiliations with state organizations of teachers of each vocational subject area and of industrial arts. Memberships include teachers of agriculture, homemaking, industrial arts, and vocational industrial education; coordinators of cooperative training; local and state directors and supervisors; teacher educators;

and vocational guidance workers. All members receive a subscription to the monthly *American Vocational Journal.* A nationally affiliated organization is the National Vocational Agriculture Teachers' Association. The American Home Economics Association enrolls not only teachers of homemaking from the public schools, but also college teachers of home economics, home economics specialists, and demonstration agents in the Cooperative Extension Service. It has affiliated state associations. Membership includes subscriptions to the *Journal of Home Economics.* The American Industrial Arts Association is an organization of teachers of industrial arts and is affiliated with the National Education Association. A national organization of teachers of business is the United Business Education Association, also a department of the N.E.A. The association publishes for its members the monthly publication, *U.B.E.A. Forum.* Another group is the National Business Teachers' Association. This organization publishes the quarterly, *American Business Education.* There is a division in this organization for administrators.

All these organizations help to develop a group consciousness and professional spirit among members. One of the shortcomings of all these organizations is the fact that most school administrators and teachers of other subjects than vocation education and the practical arts do not hold membership in them or attend the meetings. Thus they seldom hear the discussions which would help to give them a better understanding of programs of vocational education and practical arts. At the 1953 conventions of the American Vocational Association a special one-day program was held for school administrators which was well attended. While teachers of vocational education and practical arts generally hold membership in the National Education Association and in state, general teachers' organizations they may not necessarily participate in the activities of these associations to the extent that they probably should. These organizations could be the means for development of fuller understandings of programs of vocational education and practical arts. Teachers in these areas need to be just as concerned with the total welfare and program of the profession as are any other teachers and need to make their influence felt for the improvement of all phases of education in all community schools.

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Chapter 28

FACILITIES IN THE COMMUNITY SCHOOL

The development of effective programs of vocational education and practical arts in a community school requires a great deal of attention to the facilities needed for good instruction. It has been repeatedly stressed that student activity involving work with materials is a dominant characteristic in this area. Many references also have been made to the use of community resources in furthering such instruction. It is not intended here to minimize the importance of these community helps. But it should be recognized that no programs can be successful if the facilities are limited to what may be available outside the school. Facilities may either limit or help to develop a program, depending upon their adequacy.

Departments of vocational education and practical arts will require more in the way of floor space and equipment than any other. They will be among the more expensive departments to equip. Furthermore, each department is unique in its needs. For example, a good homemaking laboratory would not serve for teaching business vocations, and *vice versa*. A shop ideally organized for industrial arts would not meet all the requirements for teaching the farm-mechanic aspects of agriculture. A machine shop would meet only some of the needs of industrial arts classes.

It is, therefore, highly important to understand the principals upon which sound planning of facilities for vocational education and practical arts should be based. This chapter is concerned, first of all, with some of the basic principles that must be considered in planning facilities in the community school and that apply to most or all departments of vocational education and practical arts. Following these, some of the special facilities needed in each of the four fields of vocational education and practical arts are presented. It is not appropriate in this book to present floor plans or other reproduction of facilities. If programs and facilities are based on community needs the facilities in each community will be unique. There are many sources of such plans, some of which will be mentioned later.

General Principles in Planning Facilities

The first principle is that *planning of facilities must be preceded by careful study of needs, by setting of objectives and outlining of programs for the field of vocational education or practical arts under consideration*. As shown in Chapter 26, this preliminary work is an important function of a citizens' committee for vocational education. The number, type, and size of classes to be served by the department at the elementary, secondary, and adult levels all must be considered in planning housing. In addition, the other school and community needs for use of the facilities must be considered. These considerations suggest a second principle. *The size and arrangement of facilities should be such as to provide for use by adult classes as well as secondary school students*. This recognition is essential in a community school. It should also result in more use per dollar invested, since adults frequently will use the shops and laboratories when they are not being used by others.

Generally speaking, the principle should be followed that the same facility or *the same type of facility could or should be used both for practical arts and vocational instruction in each field*. For example: the same facility or the same kind of facility will be suitable for homemaking regardless of the age group and the degree of vocational stress. The same laboratory and farm-mechanics shop can be used for vocational agriculture and general agriculture. The typewriting room will serve classes of students aiming for business careers and classes taking typing for personal reasons. This principle also holds true, but to a lesser degree, in industrial education, particularly as the size of the community and of the schools increases. The aggregation of specialized shops needed for a vocational industrial program will not be suitable for most industrial arts programs, although any one of them conceivably might on occasion be used for non-vocational instruction. For example, an auto-mechanics shop could be used for some instruction in an adult driver-training course, or a cabinet-making shop could be used by a group of adults taking woodworking as an avocational course.

A related principle that is highly important, however, is that *the facility for a given field of vocational education and practical arts should not be used jointly by teachers of other subject fields.* For example: the use of an agriculture room by a teacher of biology may be expedient in a crowded school but is not wise use of a specialized room. Furthermore, in all but the very small schools, the facilities will probably be fully used by the teacher of agriculture if he is to meet all needs.

A fifth principle is that *flexibility and expansibility should be built into the facility.* This is in line with present-day trends in school building, generally. It is very important, especially in the field of vocational education, if the size and number of classes for specific occupational preparation are to keep pace with expansion and contraction of occupational opportunities. Folding partitions and easily movable partitions should be considered, as well as construction that will readily permit additions. The use of temporary buildings may sometimes be justified in providing for expansibility.

Prior to the recent trend toward one-story school buildings, teachers of vocational education and practical arts have worried about having their facilities relegated to basement or upstairs rooms. It is desirable to *locate all shops, as well as laboratories and classrooms for agriculture and homemaking, on the ground level* because of the supplies, equipment, and machines that must be moved in or out. Also, since these departments will attract large numbers of adults for instruction, their location should be easily accessible. All shops with heavy equipment should be located on the ground floor.

School people have debated a great deal on the relative merits of facilities built separate from the main school building versus facilities built into the main building. The advocates of the former emphasize the flexibility of a separate building whose plan will not be unduly influenced by ceiling height and width of classrooms and other influences of the main building plan. They also point out the merits of separation of noise areas. In addition, there is greater expansibility for future growth. The facilities can be used for evening meetings of adult classes and other community groups. Better use can be made of adjacent outdoor areas. There is also easier access of supplies, service, machines, and vehicles. Some school people believe that the separate building for vocational and practical arts lends status or prestige. By the same token, however, this prestige may be offset by an almost unavoidable feeling on the part of the rest of the community school that these departments are special, separate, or different; or even that they are not, indeed, a part of the local school. It may also be shown that a detached facility will involve higher costs for heat, light, water, and custodial service. The important point to be stressed here is that *all factors should be carefully considered before a decision is made to build a facility for vocational education and practical arts separate from the rest of the school structure*. The advantages of separate buildings as well as of departments in the main structure can be obtained through one-story construction with wings for the laboratories and shops for vocational education and practical arts. A variation of this is the "finger plan," consisting of a series of wings for each of the related areas connected by corridors or walk-ways.

Agricultural Education

Many excellent buildings for agriculture have been constructed during the past ten years and much has been learned about characteristics of better facilities.[1] The facilities that should be provided for agriculture consist of the classroom, laboratory, farm-mechanics shop;

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[1] For example: see series of articles in *The Agricultural Education Magazine*, 20: 152, 153, Jan., 1954.

auxiliary rooms for conference or committee work and storage; and toilets and washroom. In some schools there might also be provided school farm land, school forest, transplanting nursery, greenhouse, and/or cannery.

In most departments the classroom and laboratory could be combined in one room, since in most schools there is only one teacher of agriculture, and supervision will be easier under those circumstances. It is common practice, however, to separate some of the laboratory space with a glassed partition so that some activities such as milk testing or soil testing can be carried on by a group of students without disturbing the rest of the class. In schools with larger programs involving two or more teachers, two or more rooms could be provided, one of which might be a common laboratory used by both teachers. The combination laboratory and classroom is by far the more commonly acceptable facility, however, since it provides for a great variety of uses.

Another partition might separate space for individual or small-group conferences and for the teachers' desks and files. Committees can make excellent use of such a room. Adequate space should be provided for classroom storage of samples of crops, seed, feed, fertilizer, spray materials, and other instructional aids. If the department is housed separately from the main building it should have its own toilet facilities.

The agriculture room should be large enough to accommodate the largest class or group that will use it. This may be the FFA chapter or an adult-farmer class. In deciding on the size of the room it must be borne in mind that the room should be equipped with tables and chairs rather than with tablet chairs or desks and that there will be a number of furnishings built in that will require space. One of these is the library for agriculture. While some books on agriculture of general interest to all students should be provided in the school library, those references that will be in daily use should be housed in the agriculture room. Students enrolled in agriculture will engage in supervised study in the classroom rather than in the library or study hall. A place for display of files for records and instructional materials, a bulletin cabinet, and a cabinet for charts, posters, and other teaching aids should also be provided. Most teachers of vocational agriculture will want an audio-visual cabinet and a rack or case for student notebooks. There should also be space and equipment for storage of FFA equipment.

The classroom and the farm-mechanics shop should be considered together. Where there is one teacher of agriculture who has exclusive use of both shop and classroom, they can be adjoining. Where there are two or more teachers, or where a shop must be shared with the teacher of industrial arts, the rooms should be adjacent, but should be sufficiently separated so that noise from the shop can be kept out of the classroom. One of the essential provisions is a large overhead door to permit moving in or out large pieces of farm machinery or other farm equipment. A smaller door for students should also be provided. Another essential provision is an arrangement of stationary equipment and work benches so that considerable floor space is available for working on farm machines and other large equipment. There must be sufficient wall space above benches for tool cabinets or panels close to the areas of the shop where they will be used. It is quite generally agreed by teachers and leaders in the field that the shop should provide 150 to 200 square feet per student. A larger shop will be needed in schools with larger enrollments in agriculture. A rectangular shop is preferred and should be less than twice as long as it is wide. Space should be provided for arc and oxy-acetylene welding. Storage room should be adequate for lumber, iron and steel, paints, and other materials. The use of color dynamics for shop machinery is just as appropriate in the farm-mechanics shop as in any other shop.[2]

The school farm has not gained recognition as an essential facility, although the number has been increasing. The western states and certain southern states have made considerable use of them. A school in Tyler, Texas, reports the use of a school farm for the entire school program. This school has 150 students enrolled in vocational agriculture. Three teachers of agriculture are employed, in addition to a qualified teacher who does not teach but serves as resident manager of the farm of 180 acres. A carpentry class "purchased" a lot and built a residence on it. The elementary school pupils use the farm for studying conservation and outdoor education.[3] Many departments of vocational agriculture that do not have an enterprise that may be called a school farm make use of land rented or owned by or loaned to the school in connection with the program. A school farm should not be considered a substitute for farming facilities where a boy can develop his own farming program leading to a business of his own. The uses of school land, the advantages, disadvantages, and problems involved are being studied in many states. Deyoe sums up the purposes of school land mentioned by 38 Illinois teachers of agriculture as follows:

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[2] See Clinton D. Zollinger, "Color Conditioning in the Farm Shop," *The Agricultural Education Magazine*, 25: 55, 70, Sept., 1952.

1. To provide worth-while experiences for students.
2. To demonstrate practices of potential value to farms in a community.
3. To conduct experiments.
4. To provide experiences in working together cooperatively.
5. To provide a laboratory for teaching the relation between theory and practice.
6. To provide seeds and breeding services for individual programs of supervised farming.
7. To provide opportunities for farming programs for students with inadequate facilities.
8. To make money for a FFA chapter or a department.
9. To provide publicity for a FFA chapter and a department.[4]

Considerably more research on the operation and use of land for educational purposes is needed. While it might not be justified for vocational agriculture in a community where all students live on good farms, school land may make it possible to provide many important experiences for students from small or inadequately organized farms as well as for students in general agriculture without experience in farming. Some educators now are saying that elementary pupils should have opportunities to live and work on a farm under a plan like that of school camping.

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[3] Hollis Moore and Wallace Hawkins, "School District Runs Self-Sustaining Farm," *Nations Schools*, 53: 47–51, April, 1954.

[4] George P. Deyoe, *The Use of School Land by Departments of Vocational Agriculture in Illinois Schools*, Urbana, Ill., College of Education, 1951, p. 2.

A school forest might have some of the same purposes as a school farm and might be of value not only to agriculture but also to teaching of science and conservation in the high school and the elementary grades. In certain areas a nursery is provided, and in some fruit-growing or truck-growing areas a greenhouse is a part of the facility for agriculture. Many of the southern states include a cannery as part of the equipment, although that facility is not used exclusively by the teacher of agriculture. On the other hand, some school people look upon such a facility more as a community service and do not feel that the educational use of a cannery justifies its existence.

Business Education

The facilities for business education should meet the needs of several groups. There are students in school and adults interested in typing for personal use and in general business training. Other students will want to prepare to enter office occupations. There also are students enrolled in cooperative training programs either in office occupations or in retailing who will need classrooms for related instruction. The total number of students to be provided for in business education classes is quite certain to be large. Haubert says, "It is generally conceded that 40 percent of the total enrollment of the pupils of a secondary school will take at least one business subject.[5] Some business educators hold that as many as 85 percent of the students should take one or more semesters of typing. The enrollment of students in courses in business education is the most important single factor in determining the kind and number of rooms to provide. The rooms to consider might include typewriting rooms, shorthand rooms, bookkeeping rooms, office practice rooms, office machines rooms, study and conference rooms for cooperative students, and possibly a model store or school store. In small schools in which a maximum of two or three rooms are available, each room may need to serve for two or more types of instruction. For example: bookkeeping can be taught in a regular classroom, and a typewriting room with drop-head desks can also be used for some other purpose. Some courses will not require specialized rooms, for example: business arithmetic, general business training, and business law. Beginning and intermediate shorthand may be taught in a room suitable for one of these courses, but advanced shorthand or transcription should be taught in the typewriting room so that instruction and practice in transcribing shorthand notes into acceptable typewritten copy may be closely related.

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[5] John R. Haubert, "Not the House That Jack Built," *American Vocational Journal*, 29: 23–25, Mar., 1954.

A general principle that should be applied is that the atmosphere of the office should characterize those rooms where training for office work is given. The atmosphere closely approaching that of a store should also be evident where distributive education is taught. Although 30 pupils are considered the maximum for most classes in business education, many authorities hold that 25 working stations in a room is the maximum that should be provided, since more than that number of students can not be adequately supervised. All business education rooms should have space for storage and be provided with chalk boards and bulletin boards. The rooms should be adjoining. They might well be located near the school administrative office, so that students may be instructed in office techniques and at the same time be helpful to the school.

Light is often a limiting factor in teaching typewriting; so it should be given considerable attention in a room for that subject. Some rooms will need more light than others, depending on the nature of activity and reflecting surfaces. All rooms should have well-diffused and glareless light. The furniture and equipment also require special attention. It is suggested that, on the average, 16 to 20 drop-head desks be provided per room, with a minimum of 30 square feet of floor space per pupil. The typewriting room and the shorthand room should always be adjoining. Some schools provide a work room with built-in sink and storage units between the typing and shorthand room. This area also serves as a conference room and provides a sound buffer between the two. Some authorities hold that every type-writing room should be convertible to transcription and office practice. Filing could also be taught in the typewriting room. In view of the possibility of a variety of uses of such a room and a trend toward use of electric typewriters, one side of the room should have electric outlets in the floor. The typewriting room and any other room in which machines are operated should have acoustical treatment. The bookkeeping laboratory should be near to or adjoining the office-practice room. Equipment should include bookkeeping tables, supply cabinets, files, and other storage equipment. In schools where enrollments justify it, one or more office-practice rooms should be provided. A room of this type should be planned and equipped like any typical office found in the territory served.[6] A careful study should be made of the office machines used in the territory served, particularly those used by new employees. It is neither necessary nor desirable to provide specialized bookkeeping and other machines requiring special instruction and used only by office workers with considerable experience. The office-practice room should have receptionist desks, miniature sets and equipment for filing, and a duplicator section. Ample electrical outlets should be provided as well as acoustical treatment. Stencil and fluid duplicators should be considered, as well as calculators, both key-driven and crank-driven. Transcribing machines and listing machines should be provided, if justified by an equipment and placement survey of territory served. If funds are not available for purchase of transcribing machines they can be rented. In some departments both an office-machines room and a secretarial practice room might be justified.

In a school where there is a cooperative training program in retailing a classroom for distributive education should be provided. This is particularly important if one or more courses are offered to students in the secondary school prior to their placement on part-time selling jobs for experience and training. This room should have a coordinator's desk and files, as well as student tables and chairs. File space and bookshelves should be provided to shelve the wide diversity of instructional materials and references to be used by students. A telephone should be available for direct communication with employers. It is often desirable to simulate some of the facilities ordinarily found in stores for practice work such as sales counter, show case, cabinet, glass-enclosed unit wall case, and triple mirror. Office space could be provided in the classroom or adjacent to it.

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[6] John R. Haubert, "Buying Business Machines," *American Vocational Journal*, 27: 17, 20, April, 1952.

School stores have been developed in some schools. Statements might be made regarding the school store in relation to training in selling similar to those that were made about the school farm in relation to training in farming. Haas points out some of the limitations and possibilities:

> No matter how we dress it up, no matter how we try to explain it, no matter what claims may be made for a specialized retail training room, the facilities offered can never approach those offered by the retail store itself.
>
> Further, it should be noted that a specially equipped retail training room furnishes a strong invitation for many retail teachers to avoid facing the reality of business contacts. . . .
>
> Nevertheless, when properly used, a specialized school room for training in the retail occupations may offer many advantages when compared to the bare, disappointing, impractical, drabness of the typical classroom.[7]

It is sometimes possible to utilize a room otherwise unsuited for a classroom as a store that could serve pupils and at the same time provide worthwhile experiences for persons interested in entering the selling occupations.[8] Such articles as magazines, candy, stationery, athletic tickets, and school supplies include only a few of the possibilities. Some schools set up a model store for demonstration purposes and not for sale of merchandise. Such materials can usually be obtained from wholesalers and manufacturers at cost. A distributive education suite in one school is described consisting of classroom, conference room, sales practice unit, work room, interview room, and display window.[9]

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[7] Kenneth B. Haas, "Layout of Special Business Rooms—Planning the Distributive Education Rooms" in *Physical Layout, Equipment, Supplies for Business Education*, The American Business Education Yearbook, Volume V, New York 3, New York, New York University Bookstore, 1948, pp. 133, 134.

[8] Eva F. Tibbets and Ken R. Williams, "The Retailing Laboratory Store," *American Vocational Journal*, 26: 16–17, Mar., 1951.

Homemaking Education

As with facilities for other fields of vocational education and practical arts, a variety of facilities is needed to provide for the several subject areas encompassed in this department. The two larger areas usually are those for foods preparation and serving and for clothing activities. There should also be provided space and equipment for a living or social center, the teacher's work center, and storage space. These facilities may be provided in one or more all-purpose rooms, depending on size of enrollments; in two or more rooms, each supplying facilities for one of the areas previously mentioned; or in a homemaking cottage or separate building. However, there are some principles which should be adhered to, regardless of what form the facilities take. Some of these are applications of principles previously listed for all vocational or practical arts departments. Others apply strictly to homemaking. A few of the more important will be mentioned here.[10]

In many schools junior high school pupils will be expected to use the same facilities as senior high school pupils. A department must meet the needs of both boys and girls, and of adults of the community. The facility should, therefore, be built and equipped to meet the needs of all groups that will use it. It should be located so that it is easily accessible to adult groups and for delivery of supplies and equipment. Since there will be a wide variety of uses to which the rooms may be put, flexibility should be provided for. Above all, the homemaking department should have the atmosphere of a house.

As with other specialized facilities, the homemaking department should be used only for instruction typical of that department. It should not be used for school lunch or banquets. Other facilities should be provided for them. There may have been a tendency in the past in the planning of many existing facilities to over-emphasize instruction in foods and clothing. It is important to provide facilities for teaching all areas of homemaking.

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[9] Betty Martin Kubik, "Modern Planning for Business Training: The Hamilton, Ohio, D. E. Room." *Business Education World*, 34: 18–19, Nov., 1953.

[10] For a more detailed treatment of principles see Maude Williamson, and Mary S. Lyle, *Homemaking Education in the High School*, New York, Appleton-Century-Crofts Co., Inc., 1954, p. 386–87.

In selecting equipment, consideration should be given to the economic status of families in the community. Equipment should be as good as, and probably a little better than, that found in the average home in the community, if the standard of living is to be raised. With most kinds of equipment, several types or makes should be available to give students experience with them. For example: there might be provided both gas and electric stoves; treadle and electric machines; and perhaps one sink equipped with a garbage disposal, others without, depending on the home situations in the community. Some equipment companies aid schools in providing recent models of equipment through liberal trade-in allowances.

When facilities are to be planned for homemaking, there are several major types from which to choose. It may be helpful at this point to indicate some of the advantages and disadvantages of each type. The all-purpose homemaking room is one type that has been gaining in favor in recent years; so it may well be discussed first. The all-purpose room is favored by some since it helps to avoid the over-emphasis on cooking and sewing that might result from two separate laboratories. It makes possible the supervision of a variety of activities, such as class discussion, one or more groups working at different activities, or all class members working on the same thing. The all-purpose room places emphasis upon broad experiences. It has some of the same advantages as the general shop in industrial arts. Many pieces of furniture can be used for more than one purpose. The all-purpose room might serve the function of two, three, or more rooms by using folding partitions. It is somewhat easier to make the all-purpose room like a house than separate laboratories. One all-purpose room is generally more economical and it makes for more efficient use of building space since less floor space is required than two rooms combined. If the department has more than one teacher, all-purpose rooms may be built for the number of teachers needed and grouped together as a suite. It should be recognized that when a class is broken into groups, each of which is working in a different area of the all-purpose room, supervision by the teacher may be a bit more difficult.

Two or more single-purpose rooms are occasionally preferred where there are two or more teachers in the department. These rooms could be built and organized as an apartment. An apartment, however, is apt to have rooms, each of which would be too small for an entire class. On the other hand, it is possible to make an apartment-type facility quite homelike and inviting.

A homemaking cottage is frequently the answer to the housing problem in a school that has an overcrowded building, limited money for construction, and/or out-moded sewing and cooking laboratories occupying space needed for other classes. A dwelling house might be remodeled and furnished for teaching homemaking. When this is done it is usually necessary to remove several partitions to provide sufficient space for activities of an entire class, comparable to what might be available in the school building. If a cottage is built it could be planned as a homemaking department and thus avoid the shortcomings of a dwelling house that might be difficult to remodel.

Sometimes facilities for homemaking education are provided in a separate building which also houses agriculture and/or industrial arts. One disadvantage of this arrangement and that of the homemaking cottage is the problem of extra rest rooms and provision of heat and janitorial service. They also have the possible disadvantage of physical separation of the homemaking department from the rest of the school which may give the impression of separation from the total school, thus making it more difficult for that department to contribute to the unity of the community school. A facility such as that just referred to probably could just as well be placed in a wing of the school along with wings for other departments of practical arts and vocational education requiring room widths different from those of the majority of classrooms.

Returning to the several areas of a well-planned homemaking facility, it remains now to point out some of the essential kinds of equipment. In the clothing area, space and equipment should be provided for planning, clothing construction, and repair. Tables, chairs, and sewing machines should be provided, as well as facilities for storing each student's materials. Fitting space should be provided, with mirror and folding screen. Space and equipment should be available for laundering and pressing. Equipment might include washer, drying equipment, irons, and ironing boards.

In the foods area, places should be provided for each student to prepare and cook food. As a solution to this problem unit kitchens have become popular, although they require more total floor space than a general foods laboratory. Four pupils are usually recommended as a desirable number for each unit kitchen. One or more centrally-located refrigerators can serve all units. Adequate ventilation should be provided to draw off fumes.

The living or social center could be part of the suite or a section of an all-purpose room. It is an area in which those experiences can be provided that relate to the social activities of the home. The area also can be used for committee meetings and other group planning but should be large enough for a whole class to meet informally in it. This area should be furnished with sofa, easy chairs, table, lamps, rugs, bookcases, curtains, pictures, and other furnishings ordinarily found in modern homes.

Some homemaking departments have a home crafts area for upholstery, furniture refinishing, and renovating. On the other hand, facilities for these activities might be provided in one of the school shops. The advantages of having such an area as a part of the homemaking facility lies in the possibility of its use by individual students or small groups supervised by the homemaking teacher concurrently with other class members working in other areas of the laboratory.

In order to provide instruction in care of the sick, additional space and furnishing should be made available, such as a roll-away bed, bed linen and blankets, as well as medicine cabinet and first-aid equipment. These provisions would also help in caring for accidents that might occur, such as burns or mechanical injury, and should help to promote the teaching of safety in the home. Some larger schools also might provide space for training in child care or a nursery. All homemaking departments should be planned so as to be adapted to bringing in children for study by the students, and to include materials and equipment for study of child development.

Industrial Education

The differences in community needs should be reflected by variation among schools in number, diversity, and furnishing of rooms for agriculture, business, and homemaking. These differences are even more striking as we consider industrial education. We may find variations from the small general shop in a small community to a large number of shops in the large city. These might include one or more general shops and/or unit shops for industrial arts, accompanied by many specialized shops for vocational industrial education. Primary consideration must be given to the groups of students to be served. These groups should include pupils in the elementary school whose facilities for practical arts ordinarily will be included in their grade rooms, particularly at the lower elementary level. In some schools a general shop is provided at the upper elementary level. The needs of students in the junior high school for industrial arts and of students in the senior high school both for industrial arts and vocational industrial education must be considered. When plans are made for these facilities it must be borne in mind that there will be many persons not enrolled in the elementary or secondary schools who would like to use the same facilities. These will include adults enrolled in classes either for their personal use or to prepare for or improve their proficiency in an industrial occupation. In addition, there will be apprentices seeking related instruction and students on cooperative training programs to be cared for.

We may start by brief mention of the different facilities that might be needed to take care of the instructional needs of the groups just referred to. For industrial arts the decision must be made whether to provide a general shop or unit shops, or a combination of both. The general shop was defined and briefly described in Chapter 16. A unit shop is one in which activity is provided for in just one area of industrial arts, such as printing or machine-shop practice. The general shop is widely favored by leaders in the field, particularly for smaller schools and for the lower grades of the secondary school. In many respects, the general shop is basic to the development of a broad program of industrial arts and in a new program it will be a logical beginning. As the program increases in size and expands in scope and objectives, unit shops may be added as needed.

The facilities for vocational industrial education should be determined by the training needs of the community. They might include auto shop, drafting room, electricity and radio shop, printing shop, machine shop, and a cabinet-making shop. A study of industrial employment in the community and the results of follow-up studies would suggest the areas of need and the content to be taught.

It would be unwise in this limited treatment of the subject of housing and equipping schools for industrial education to attempt to make detailed suggestions or to recommend specific standards for shops. A great deal of study has been devoted to the subject[11] and much has been written by national leaders in industrial education of value to those who will be given the task of planning a facility for a community school.[12] A few general suggestions and principles of planning will be given.

The first step in planning facilities is to outline in considerable detail the programs of industrial arts and vocational industrial education for the community school. These outlines might include objectives, groups to be served, and courses to be offered, including instructional activities which it is hoped will be carried out. Ericson advocates a community survey to learn the facts about building and storage on panels or individual tool cabinets placed near areas where they will be used. Mobile cabinets or dollies also may be used. The argument for tool panels is that they can easily be removed and replaced by students; and that they save space, prevent loss of tools, and cut down on student traffic. In some unit shops and vocational industrial shops, if there are a number of expensive and large tools in limited quantity, there will be need for a central tool-storage facility to take care of them.

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[11] See, for example, a study by Willard Bateson of standards for physical facilities for school shops and development of check lists of 68 physical facilities, with standards validated by jury of experts: *School Shop*, 13: 5–42, April, 1954.

[12] Lawrence Prakken, *Modern School Shop Planning*, Ann Arbor, Mich., Prakken Publications, 1953. Also see series of articles by the Industrial Arts Policy and Planning Committee of the American Vocational Association in a series of articles which appeared monthly in *The American Vocational Journal*, beginning 28: 14–15, Feb., 1955.

The modern concepts of course building in industrial arts and vocational education and improved techniques of instruction should be reflected in the plans for facilities. These concepts will involve liberal use of demonstrations and visual and auditory aids; class discussion; and study of reference materials that are increasingly becoming available in improved forms. Accordingly, either a library or study alcove should be provided. This may be separated by a glass partition from the rest of the shop. A demonstration and visual aids area should be provided in some shops or as a separate room adjoining one or more shops. The use of a projection cabinet is to be recommended. There should be provision for a planning area either in the shop or in a separate room. This area could be combined with the library, or it could also be used for class or small-group discussion. In a comprehensive general shop general-purpose tables and a wide variety of benches, tables, cabinets, and other equipment should be provided.

When school boards and administrators develop plans for housing and equipping departments of vocational education and practical arts the teachers in these departments are sometimes not sufficiently involved in the early stages. Architects and administrators are becoming increasingly aware of the special needs of these departments in provision of space, in housing, and in selection and arrangement of equipment. There is considerable research available relating to the problem. But above all, the *facilities should be planned with aid of teachers,* and with assistance from advisory committees. Only in this way will the facilities reflect community conditions and needs, and serve the teachers and students in carrying on instruction at a high level that will contribute to the objectives of vocational education and practical arts.

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Chapter 29

PATTERNS OF ORGANIZATION FOR ADMINISTRATION

The administration of vocational education and the practical arts involves problems which are peculiar to this area of the community school program; an example is the necessity for close working relationships with labor and management groups. Also involved in the administration of vocational education and the practical arts are problems which are not unique to this phase of education but which are accentuated by the nature of the instruction; an example is the selection, maintenance, and replacement of tools and equipment. The matter is further complicated by the fact that elements of the program are carried on in schools of all age and grade levels—elementary schools, junior high schools, senior high schools, trade schools, technical schools, community colleges, and adult day and evening schools. Vocational education and the practical arts is not merely a course or series of courses to be offered on a particular grade level. It is an area of instruction which permeates the entire community school system and is designed to serve the needs of children, youth, and adults of the community at all stages of their development.

Traditionally, vocational education in particular but to some extent the practical arts also have had less prestige in the academic family than those subjects which are intended to develop primarily the intellectual capacities of the learner. In part, this feeling is related to the conflict between the mental and the manual which is more pronounced in some other cultures than it is in the United States. Then too, vocational education and the practical arts have not been in the curriculum nearly as long as mathematics, reading and writing, science, Latin, and history. For these and other reasons, vocational education has developed somewhat as a separatist movement in the public schools of the United States. While this may have been necessary and desirable in the early development of our system of public schools, there is little justification for this position today. All children, youth, and adults in a democratic society have a need for vocational education at different stages of their development; a unified community school program designed to serve all the educational needs of all the people would seem to serve the community best.

In view of the scope and complexity of the activities included in a program of vocational education and practical arts, it seems obvious that every community school system needs a well-conceived plan of organization to accomplish the great variety of tasks which need to be performed in the administration of such a comprehensive program.

The Superintendent Needs Assistance

In Chapter 23 the need for specially qualified personnel on the staff of the superintendent was discussed in relation to the improvement of instruction. But the superintendent needs help in solving administrative as well as supervisory problems. Usually these two types of functions are combined in the same person or persons on the superintendent's staff so that there is little need or perhaps even the desirability of distinguishing between them.

Regardless of the size of the community the people living in it have a need for the whole scope of educational services which vocational education and practical arts can provide. Since smaller communities cannot afford to employ a staff of specialists, the superintendent must perform those functions which would be the responsibility of staff specialists in a larger school system. The quality and quantity of specialized services will necessarily be limited in a community too small to provide the superintendent with a staff of assistants. Even though the superintendent has a rich background of training and experience in one or several of the special fields, he will not have time to develop all the specialized programs of a community school. As a result he may devote his time and attention to the development of a program of general education, including some work in the practical arts, and then engage in the process of rationalization until the conclusion is reached that a "good general education is the best preparation for work, anyway."

In all but the smallest communities the superintendent has a staff for certain specialized functions. The number of professional assistants increases as the size of the community increases. In June, 1950, the American Association of School Administrators made a study of the 3220 superintendents in the United States and found that the median number of professional assistants in relation to the size of the city was as follows:[1]

POPULATIONS OF CITIES	MEDIAN NUMBER OF PROFESSIONAL ASSISTANTS
2500—9999	1.5
10,000—29,999	2.5
30,000—49,999	4.8
50,000—99,999	7.9
100,000—199,999	16.3
200,000—and over	37.1

The larger the city, the more likely is there to be on the staff one or more specialists in vocational education and/or the practical arts. It might be expected that a community of 30,000 population or larger should have one full time person especially qualified to deal with the problems of vocational education and the practical arts. Many smaller communities employ a part-time person, who also serves in some other capacity, such as director of adult education, director of guidance, or chairman of a department in the high school. The problem is how to build these positions and the persons filling them into a staff which will function best in the development of a community school program.

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[1] *The American School Superintendency*, Thirtieth Yearbook of the American Association of School Administrators, Washington, D.C., The National Education Association, 1952, p. 298.

There are as many different community school system organizations as there are communities. The possible combinations are innumerable, so that even in communities of like size and character it is unlikely that they would have the same pattern of organization. Furthermore, the "ideal" organization for any given community may need to be modified and adapted to the interests, abilities, desires, and personalities of personnel available. A number of guiding principles might, however, be stated which will apply to any school organization.

1. The superintendent of schools is the administrative head of the community school system. This means that he is responsible to the board of education for the total program, including vocational education and the practical arts.

2. Some provision must be made for the performance of administrative and supervisory functions in relation to vocational education and the practical arts. If the needs of children, youth and adults of the community are to be served maximally, the program must include activities in these areas.

3. There is a practical limit to the number of individuals from whom the superintendent of schools may personally receive reports and with whom he may discuss and determine policy and programs of action. The number will vary depending upon the complexity of the organization; therefore, while five is generally considered optimum, it may be anywhere from three to seven or eight. In the smaller school systems these assistants might be the principals of the schools, who might also teach part-time. This suggests that if there are two or more specialists in the vocational and practical arts fields on the central staff, they should report to the assistant superintendent or director in charge of vocational education and the practical arts instead of the superintendent.

4. The superintendent must delegate to his assistants the authority commensurate with the responsibility which he gives them. When the function of developing the program of vocational education and the practical arts is delegated to one of his major assistants, the superintendent should outline the job to be done and then give the assistant freedom to do the job. Just as the superintendent would not want the

board of education to deal with administrative matters which had been or should be delegated to him, so he should not go over the head of an assistant by making decisions in the assistant's field of responsibility.

5. All staff members should respect the authority of the school principal who is responsible for the total program operating in each school. Members of the central staff are not employed to operate programs in any one of the school units. A person might, however, be employed to serve part-time as a director of vocational education and part-time, for example, as a coordinator of the high school cooperative program or as chairman of the business education department in the high school. He would report to the superintendent in the performance of the former function and to the principal in relation to the latter. If the proper cooperative relationships are developed between central staff members and principals and teachers, this "authority" will seldom be used. Instead, principals and teachers will look upon such specialized staff personnel as helpful resource people available when needed.

Figure 6 is an illustration of the administrative organization chart for a large city school system and Figure 7 shows how a smaller school system is organized for administrative purposes.

Any organization is only the skeleton for the effective operation of the community school system. The coordination of the services of the several functionaries is more important to the successful operation than a chart showing lines of authority and functions to be performed. A well-conceived plan of organization helps to achieve more effective coordination, while a poor plan may make it almost impossible to coordinate the activities of all staff members. It should always be kept in mind that the principal function of a central staff of administrators, supervisors, and consultants is to facilitate the improvement of instruction.

The School Is the Administrative Unit

The foregoing discussion of the organization of the superintendent's staff should not be interpreted as a scheme to control the activities of the community schools. The functions of the main office are leadership, service, and coordination, with the control delegated to the principal of each school unit. The school is "the

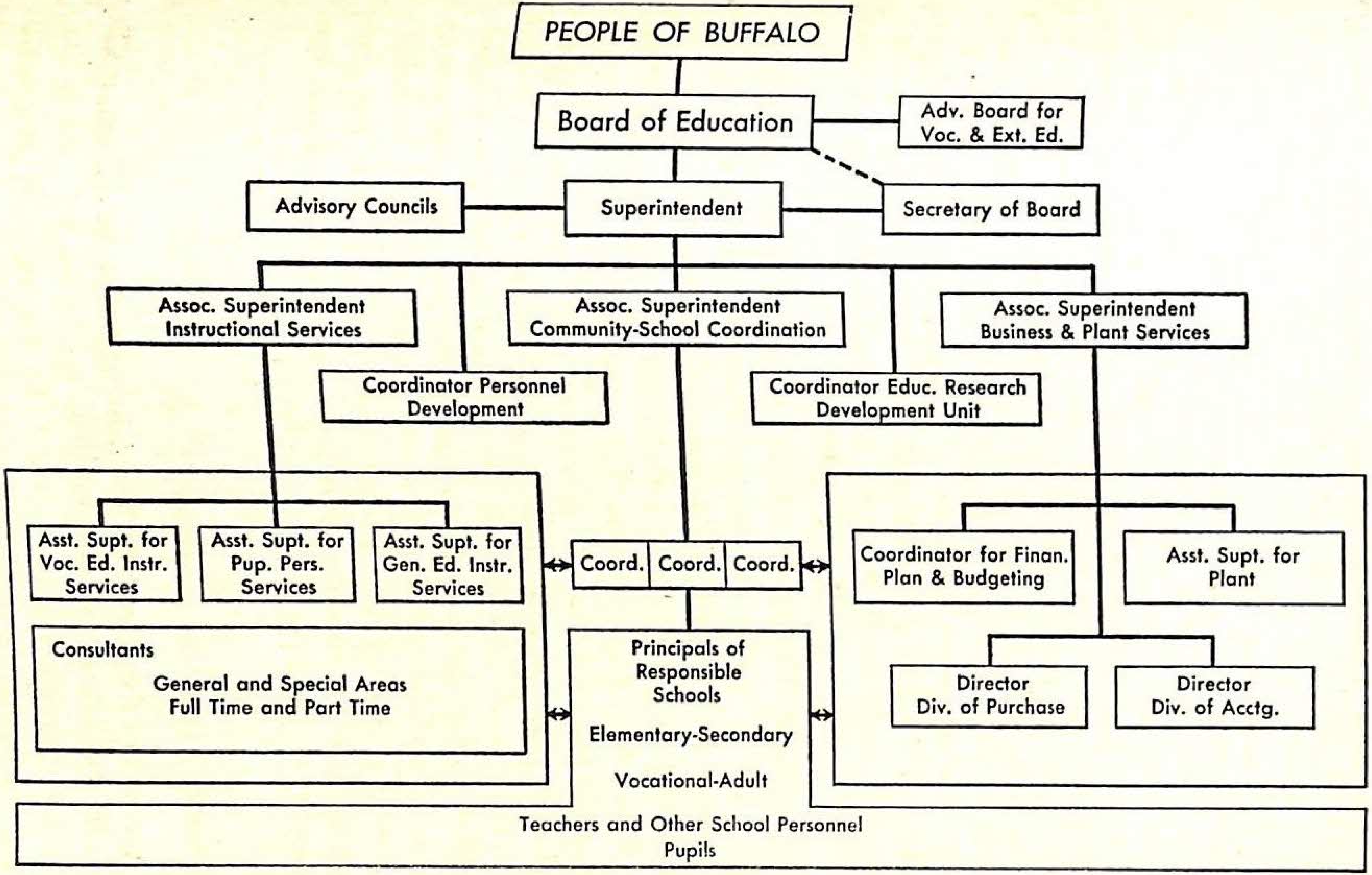
PEOPLE OF BUFFALO
Board of Education
Adv. Board for Voc. & Ext. Ed.
Advisory Councils
Superintendent
Secretary of Board
Assoc. Superintendent Instructional Services
Assoc. Superintendent Community-School Coordination
Assoc. Superintendent Business & Plant Services
Coordinator Personnel Development
Coordinator Educ. Research Development Unit
Asst. Supt. for Voc. Ed. Instr. Services
Asst. Supt. for Pup. Pers. Services
Asst. Supt. for Gen. Ed. Instr. Services
Consultants
General and Special Areas
Full Time and Part Time
Coord.
Coord.
Coord.
Principals of Responsible Schools
Elementary-Secondary
Vocational-Adult
Coordinator for Finan. Plan & Budgeting
Asst. Supt. for Plant
Director Div. of Purchase
Director Div. of Acctg.
Teachers and Other School Personnel
Pupils

Fig. 6. Organization Chart for the Administration of a Large City School System—Buffalo, New York.

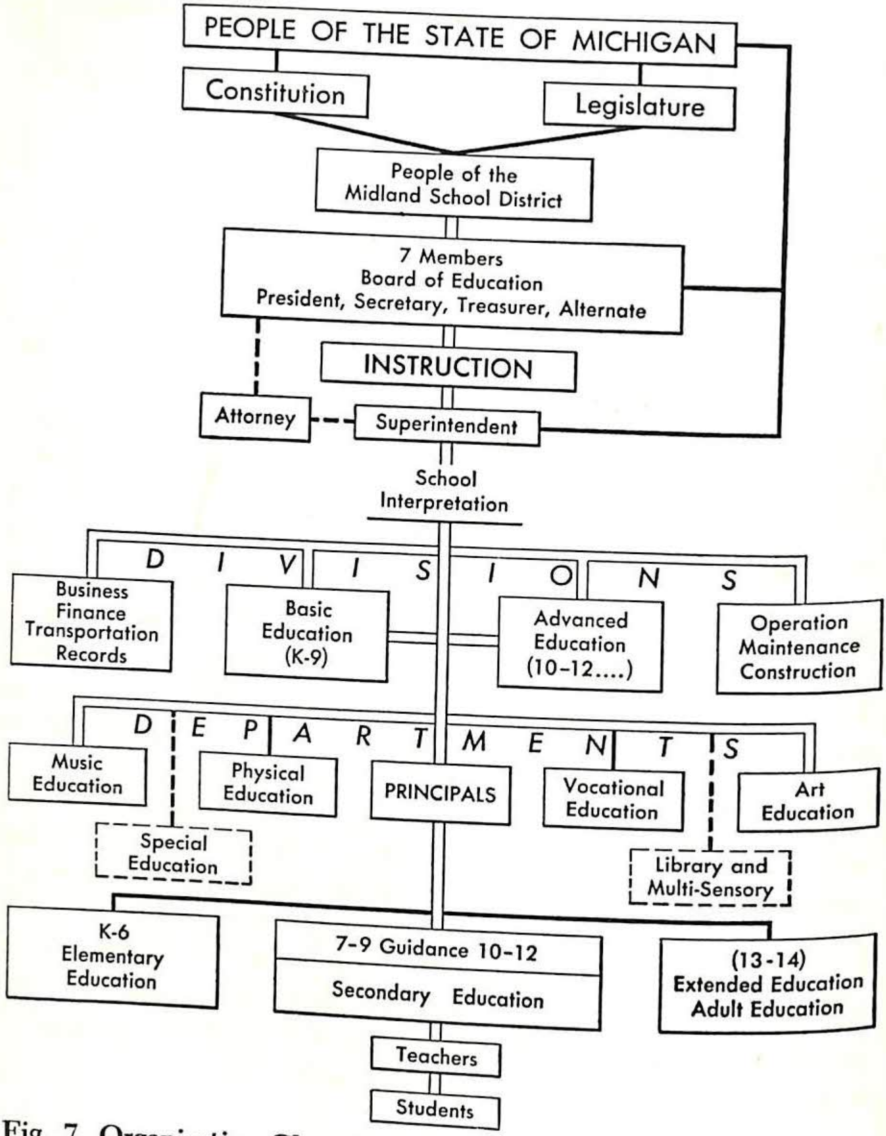
PEOPLE OF THE STATE OF MICHIGAN
Constitution
Legislature
People of the Midland School District
7 Members Board of Education President, Secretary, Treasurer, Alternate
INSTRUCTION
Attorney
Superintendent
School Interpretation
DIVISIONS
Business Finance Transportation Records
Basic Education (K-9)
Advanced Education (10-12....)
Operation Maintenance Construction
DEPARTMENTS
Music Education
Physical Education
PRINCIPALS
Vocational Education
Art Education
Special Education
Library and Multi-Sensory
K-6 Elementary Education
7-9 Guidance 10-12
Secondary Education
(13-14) Extended Education Adult Education
Teachers
Students

Fig. 7. Organization Chart for the Administration of a Smaller City School System—Midland, Michigan.

thing" and any administrative organization should be designed to build up the school as a unit.

Special administrative arrangements which need to be made in the organization of the elementary school to carry out the type of program recommended in Part IV of this book are relatively simple. No specialized personnel are needed although some elementary schools, especially those including grades seven and eight, have a special shop or laboratory and a teacher especially trained in the practical arts. In most elementary schools those experiences involving the practical arts will be provided for children as a part of the activities of the self-contained classroom. Each classroom in the community elementary school should include an activity area equipped with suitable tables, benches, tools, and supplies to carry on the practical arts activities. The use of these tools and materials in the educational program presents certain administrative problems, but no special organization or procedures need be established to handle them. The principal and the faculty can solve these problems in the same way as other supply, equipment, and instructional matters are handled. The scope of the principal's duties, however, will be expanded as the practical arts activities are incorporated in the elementary school program. Also, leadership for the development of this phase of the program must be provided by the elementary school principal. Resource people from the superintendent's office, the junior or senior high school (possibly a teacher of the practical arts), the state department of education, or a college or university may be brought in to assist in both the improvement of instruction through the use of the practical arts and in terms of providing more meaningful experiences in relation to the development of attitudes, habits, insights, and understandings about the world of work.

Secondary School Organization

The chief officer in every secondary school is the principal. In the community college he may be called the dean or director. In addition to his administrative duties the principal should also serve as an trator. While this diversity creates problems for the administrator, it is at the same time a strength, provided the administrator is able to make the best use of the potential contributions of each member of the instructional staff. Since the supply of vocational and practical arts teachers has been and probably will continue to be less than the demand, the salaries of these teachers are sometimes higher than those paid other teachers. This is especially true in smaller school systems and where there is no salary schedule in force. School systems which have salary schedules generally make provision for paying teachers higher salaries when work experience is a part of their required preparation. In the vocational fields, especially, teachers are sometimes employed with less educational qualifications than is required in other fields because it is not possible to obtain teachers who have both an adequate background of experience in the vocation which they are to teach and the amount and kind of general and professional education considered desirable for teaching. It is more difficult to find suitable substitutes for vocational education and practical arts teachers. Teachers of vocational and practical arts activities, as a class, are less facile in verbal communication than are teachers in general. These are some conditions which the administrator, especially, must recognize in formulating a plan of organization for the secondary school. A more detailed statement on the matter of teacher personnel will be found in Chapter 27.

The secondary school with offerings in the practical arts and vocational education has a more obvious need for certain pupil personnel services. While all youth need vocational guidance services, the need comes into sharper focus in a school which offers specialized vocational courses. Youth are more likely to be interested in discovering and developing their capacities. Co-curricular as well as curricular activities take on new meaning. The individual's goals and aspirations become the chief motivation. The relation of guidance services to vocational education and the practical arts was discussed in Chapter 18.

Secondary schools with facilities for vocational education and the practical arts will have special problems in the administration of the school plant and equipment and in providing necessary supplies if maximum use is to be made of these facilities. The capital outlay required for shops, laboratories, and classrooms used for vocational education and the practical arts makes it imperative that the facilities be fully utilized; this suggests the need for a well conceived plan for maintenance of these facilities. Since adult groups will probably need instruction involving the use of these facilities it may be necessary to have more than one instructor teach in a particular shop or laboratory. In some areas of activity, the cost of supplies is a major consideration; students in some cases may work on projects which have value to the school and in this way reduce the cost of supplies. The purchase and control of supplies presents problems which are not unique to secondary school administrators. They are merely accentuated and made more complex by the greater variety of supply items needed and the specialized nature of some of them.

Vocational education and the practical arts activities are more expensive than most other areas of instruction. The school administrator must be in a position to defend these phases of the school program in spite of the cost. The entire faculty should understand the reason for these higher costs and recognize the worth of this phase of the program. Expensive equipment, more square feet of floor space per pupil, supplies, and lower pupil-teacher ratios are some of the reasons for the higher costs of instruction in vocational education and the practical arts. The financing of the program is discussed in Chapter 30.

The improvement of instruction in any one of the specialized fields included in vocational education and the practical arts requires a knowledge of that field. Teachers and administrators who have had no experience in or contact with these special fields are apt to fail to understand their aims, methods, and contributions. Those teachers engaged in these activities frequently make little effort to give other faculty members a general understanding of their work. In many schools the result is that the vocational education and practical arts teachers go about their own work failing to understand the contribution of other teachers to the total education of youth, and all other teachers do likewise. The organization of every secondary school should be conducive to the pooling of the efforts of the faculty toward the common goal of providing for all boys and girls those experiences which will result in their maximum development. The cooperative improvement of instruction in vocational education and the practical arts is discussed in Chapter 22.

A program of vocational education and the practical arts in the secondary school cannot be successful without the closest kind of working relationships with the community. Interested groups in the community should be involved in planning the program, in the operation of it, and finally in the evaluation of it. To accomplish this cooperative relationship with all community interests a variety of techniques will be employed. The school will go to the community to determine needs, advisory committees will be used on a continuing basis, community resources will be utilized in the operation of the program and, in relation to the vocational program, the school will work with employers who will absorb the product. Techniques for developing community relationships are discussed in Chapters 2, 17, 25, and 26.

There is no "best" plan of organization for all secondary schools. The nature of the community, the needs of the students, the instructional personnel available, the size of the school, the program of the school, and many other considerations should enter into the planning of an organization. In a small secondary school, for example, the principal may have no central staff other than a clerical assistant. In the very small school, he may even teach part time. In a school of this size the principal would deal directly with every member of the instructional staff. In a larger school the principal will have a staff of assistants and where the number of faculty members justifies it, he would have some type of organization which would make it possible for him to work with representatives of groups of teachers rather than with each teacher individually.

The departmental plan of organization has been the traditional practice, but during recent years it has received much criticism. In a number of schools the department plan has been discarded and a committee system has been substituted. It is not within the purview of this book to discuss the advantages and disadvantages of departmentalization, but the following principles should be recognized in setting up any type of school organization.

1. There is a limit to the number of teachers with whom a principal can work directly. This suggests the need for some arrangement whereby he can work with groups of teachers through their representatives.

2. Whether groups of teachers are organized as departments, committees or on some other basis, the department heads or committee chairmen should be chosen by the group they represent. It may be desirable to have a rotation plan or at least to place a limit on the number of years any one person may serve in this capacity.

3. Two distinctively different kinds of functions need to be performed in the operation of a school: (1) administrative functions which have to do with regulating and controlling the affairs of the school, and (2) curricular functions which include the determination of what is to be taught as well as when and how it should be taught. The former set of functions are more routine while the latter category requires imagination, creativity, and an experimental point of view. In a smaller school the principal could perform all of the strictly administrative functions but in a larger school it might be desirable to have "administrative assistants" (call them what you will—division chiefs, department heads or wing managers) to whom the principal could delegate some of these administrative duties. A different arrangement might be made for the accomplishment of the curricular functions. Here committees, some of which cut across subject matter lines, might function most effectively.

4. Teachers, like most other people, prefer to work in smaller groups. They also prefer to work with people of like interests and backgrounds. It is recommended, therefore, that whatever pattern of organization is used in the operation of the school, especially in relation to the curricular functions, some groups be organized on the basis of subject matter and others on a broader educational basis, such a committee to study the occupational training needs of youth who are not planning to go to college.

Comprehensive High Schools Compared with Specialized Vocational Schools

The comprehensive high school is a school in which all boys and girls of secondary school age may have the opportunity to explore their interests and capacities through a variety of experiences and in which they may also get the kind of specialized education suited to their abilities and consistent with their vocational goals and aspirations. It is a school designed to serve the general and specialized needs of *all* youth—those who will go to college for their specialized training and those who will leave high school to work in the community.

High schools in small communities cannot be truly "comprehensive" because the number of students is too small and the faculty too limited to provide for more than the general education needs of all youth and specialized vocational needs in one or two broad fields, such as agriculture and homemaking. In communities of 50,000 or less there is no problem as to the relative merits of the comprehensive high school and the specialized vocational schools; in most communities of this size there is only one high school, and therefore whatever vocational education is to be offered must be provided as a part of the program of that school. If the program is broad enough to meet the specialized needs of all youth, it can justifiably be called a "comprehensive high school."

It is in the larger cities where the issue regarding the relative merits of these two types of secondary schools is drawn more closely. In a study of vocational education in New York City a comparison of the comprehensive high school with the specialized vocational school was made in which the advantages and disadvantages of each type of organization were listed. The conclusion was reached that,

> For the large city, the weight of advantage seems on the side of the separate school, at least for many types of programs. However, in the final analysis, the effectiveness of a vocational program, whether it is given in separate schools or in the comprehensive high school, depends on whether the leadership of the institution believes in vocational education, knows how to operate a good program, and gives it support and intelligent direction.[2]

It is the opinion of the authors that the standards of vocational programs offered in the comprehensive high school can be equal to or even surpass the standards of comparable programs in the specialized school. At the same time, the comprehensive school can provide a great variety of special services and programs which it is not possible to offer in the specialized school. Also, the vocational departments of the comprehensive school can draw on the resources of other departments of the school to vitalize and enrich their instruction. But perhaps the most important reason for favoring the comprehensive high school is that it brings together, in an institution designed to educate boys and girls for citizenship in a democracy, both (1) those who will make their contribution to society primarily through the use of intellectual capacities and (2) those whose contributions will be made through the use of a combination of mental and manual abilities.

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[2] *Vocational Education in the New York City High Schools*, Albany, N.Y., New York State Education Department and the Board of Education of the City of New York, 1951, p. 62.

Need for Larger School Units of Administration

Much has been written and some work has been done on reorganization and consolidation of school districts to form larger units of administration. The need for more aggressive action in this direction in most states is obvious. While the size of the school district affects all levels of education, it is particularly significant in relation to secondary education.

The small high school is usually less efficient than the larger school. Even though the school district has sufficient wealth to support a good school, there are not enough students to provide an adequate program. Youth attending small high schools are handicapped in several ways: (1) a restricted curriculum, (2) limited facilities for student activities, and (3) frequently, the quality of instruction suffers because personnel must direct activities for which they have had little or no preparation and sometimes even a lack of interest. Because of the limited offerings of the smaller high school, it is impossible to meet the specialized needs and interests of the boys and girls in attendance. Most smaller high schools are in rural areas; frequently youth attending these schools must choose between the college preparatory curriculum and the general curriculum. If a specialized curriculum is offered it will most likely be agriculture even though it may be recognized that at least half of the boys are interested in business and industry.

How large should a school or school system be in order to provide an adequate program of education in the most efficient manner? Reeder has stated several criteria which might be helpful.

1. The unit should be sufficiently large to permit the organization of a complete system of elementary and secondary schools and an adult education program on an efficient financial and pedagogical basis. For the larger centers of population, provision should also be made for the organization of a system of junior colleges and terminal vocational schools.
2. It should be sufficiently large to make provision for an adequate administrative and supervisory personnel.
3. It should not be so large in territory or population that the people would lose interest in the schools. The administration of the schools should be kept close to the people.[3]

Cooperative Efforts between Two or More School Districts

Specialized education for occupational purposes, and in some forms the practical arts, cannot be provided without personnel who are qualified in their special field or fields to be taught. A smaller community may not need the full-time services of a teacher in any one vocational or practical arts field. It may be possible to share the services of such a teacher with a nearby community having a similar need for specialized instructional services. The services of a coordinator of cooperative work-study programs might also be shared by two or more communities.

Programs of vocational education and the practical arts are generally retarded in communities where there is no qualified person on the staff to give leadership to this segment of the community school program. Yet in smaller communities it may be impossible to justify the employment of such a person on a full-time basis. A number of smaller communities have availed themselves of specialized administrative and supervisory services in vocational education and the practical arts by employing a well-qualified individual in cooperation with

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[3] Ward G. Reeder, *The Fundamentals of Public School Administration,* Third Edition, New York, The Macmillan Co., 1951, p. 67.

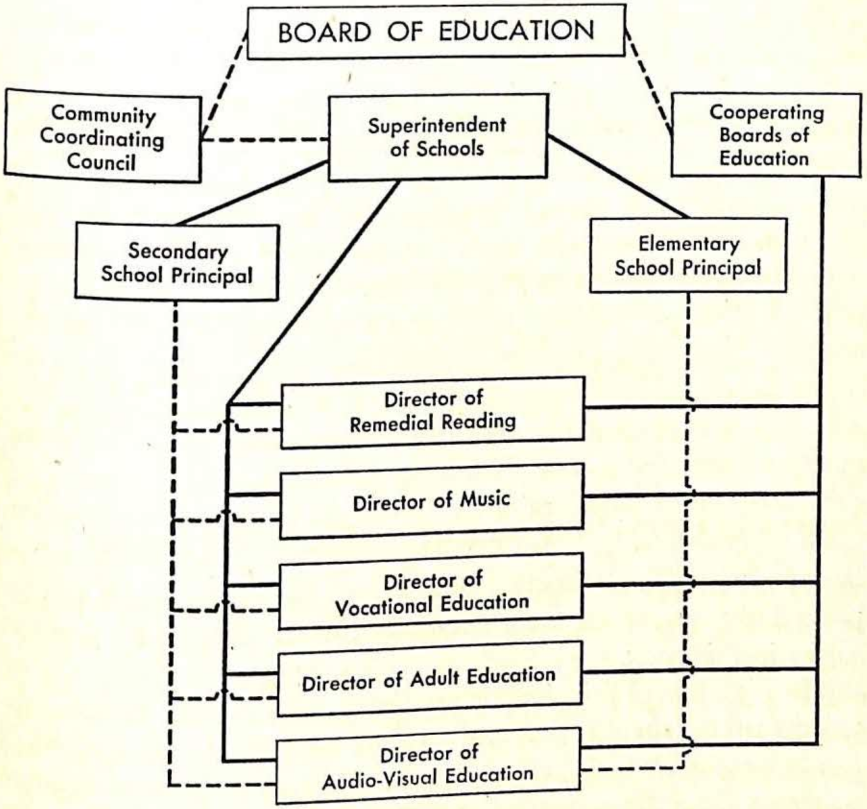
BOARD OF EDUCATION
Community Coordinating Council
Superintendent of Schools
Cooperating Boards of Education
Secondary School Principal
Elementary School Principal
Director of Remedial Reading
Director of Music
Director of Vocational Education
Director of Adult Education
Director of Audio-Visual Education

Fig. 8. **Organization Chart Showing How Smaller Community Schools Can Share in the Use of the Services of Specialized Personnel.** Taken from *The American School Superintendency*, Thirtieth Yearbook, American Association of School Administrators, Washington, D.C., National Education Association, 1952.

the boards of education of other communities. Figure 8, taken from the Thirtieth Yearbook of the American Association of School Administrators, shows how specialized services can be provided even in smaller communities. The five specialists are part-time workers in more than one local district; they are employed jointly by the several cooperating boards of education.

Relationship of Secondary Schools and the Community Colleges

The community college is viewed by some educators as the upward extension of the secondary school; in a sense they think of it as the addition of grades 13 and 14 to the traditional high school. In fact, it has been recommended that these two grades be combined with the 11th and 12th grades which would result in the community school system organized on a K6-4-4 plan. There are others who prefer to think of the community college as a small or "junior" college with the sole function of preparing young men and women for "senior" colleges. Obviously, those holding this view would not associate it with the high school. In practice the community college (more frequently called junior college) is a separate administrative unit with a dean or director performing the functions a principal performs in other school units. In fact, the relationship of the dean to the superintendent and his staff is the same as that of a principal. The purposes and programs of the community college have been discussed earlier in this book.

The high school principal or principals and the dean of the community college should see that the vocational education and practical arts programs in their schools are coordinated so as to avoid unnecessary duplication of services and to be sure that all community needs are being met on one level or the other. As a general rule specialized education for vocations should be provided just prior to the time of employment. This does not mean that *all* specialized education should be given on the 13th and 14th grade level, since many boys and girls who need specialized training do not continue their education beyond the 12th grade. As the percentage of youth attending community colleges increases, more of the specialized education will be accomplished in such schools. Also, as occupations in business, industry and agriculture become more complex, requiring a higher degree of technical knowledge and skill, it will become necessary for youth to acquire a broader educational foundation upon which to build the specialized training. Increasingly, then, it is becoming impossible to include in a twelve-grade high school education the development of all the competencies necessary for a person to function effectively as a citizen and a worker, especially in technical occupations. The community college program should include provisions for completing the education of these youth.

Adult Education in the Community School

Programs of adult education do not just happen. Someone with the necessary know-how must be given the specific responsibility for developing such programs. The high school principal should not be expected to carry this function. There should be, on the staff of the superintendent, someone who has this responsibility either as a full- or part-time assignment. Frequently this function is combined with the administration and supervision of vocational education and the practical arts. This is a logical combination since the greater number of students enrolled in the community program of vocational education and the practical arts will probably be adults. Also the number of adults enrolled in courses of a practical arts or vocational nature generally exceeds the number enrolled in all other courses. In some communities the only adult education classes conducted are those designed for vocational purposes.

In all but a few of the larger cities there are no special facilities for adult classes. The shops, laboratories, and classrooms of the high schools and the community colleges must be used. This makes it mandatory that the cooperation of the principals and the deans be secured. A high degree of staff coordination is imperative.

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Chapter 30

FINANCING THE PROGRAM

In some states a portion of the vocational education program is provided through state-operated and state-financed vocational schools. While there undoubtedly is ample justification for making the operation of certain specialized schools the business of the state, the authors hold that education should be a community responsibility at least to the extent that the community is able to operate its own program efficiently. In this way it is possible to keep the control and financing of education closer to the people whose welfare is dependent upon it. Every effort should be made to reorganize school districts into larger units of administration so that more of the education of children, youth, and adults can be provided through local school systems. In the meantime, however, it is recognized that many community schools are too small to provide an adequate program of vocational education for boys and girls in high school as well as adults of the community. This situation can be helped in two ways: (1) larger communities should plan their vocational programs with the needs of the surrounding school districts in mind and then admit non-resident boys and girls and men and women into these vocational activities, and (2) state school-aid laws should make it possible for boys and girls of high school age to transfer to a high school other than their own where the vocational education programs available are appropriate to their purposes. Tuition, in such cases, should be paid by the district of residence. To avoid transfers for other than educational reasons, provision should be made for the county superintendent's office or the state department of education to review such cases. The problems of financing vocational education and the practical arts are discussed in relation to those programs operated and financed by the local community. Much of the discussion, however, applies to state-operated schools as well.

An Enriched Program Is More Expensive

Some forms of vocational education and the practical arts are more expensive per pupil hour of instruction than most other phases of the education program. Cost of tools and equipment, need for more floor space per pupil, smaller teacher pupil ratios, and (in some cases) higher teacher salaries are among the causes. The question is not, "Can the community afford to have such programs?" but rather, "To what extent are youth and adults, and therefore the community also, handicapped if we fail to provide such programs?" Let us consider these two types of activities separately.

The practical arts are generally less expensive than vocational education activities although the cost differential is still a significant one, especially for tools and equipment. Whereas a classroom for instruction in mathematics or social studies can be equipped for less than a thousand dollars, a shop, homemaking laboratory, or typing classroom might cost 5 to 50 thousand dollars to equip. The cost of supplies may be somewhat higher than for most other school activities. The salary costs should be about the same, unless it is school policy to operate classes of more than twenty-five students; a teacher of the practical arts should not be expected to work effectively with more than that number of students at one time. Even though the practical arts are more costly than other general education activities, the cost must be considered in relation to the values which children, youth, and adults derive from such experiences. These benefits to the individual and the community have been discussed in detail in earlier chapters.

Vocational education is not provided in some communities because it is considered too expensive. Educators as well as other people opposed to specialization on the secondary school level frequently take the position that general education needs should be met before provision is made for specialized education. This is a distorted concept—to think that some of the needs can be postponed or ignored while we concentrate on others. The origin and nature of needs, both individual and societal, suggest that they are interrelated and must be met when they arise. Few would suggest that nothing be done about the health needs of children because we are so busily engaged in and spending all available funds for activities planned to develop social or civic competencies. The truly democratic community school is interested in meeting *all* the educational needs including the need for vocational education.

The higher cost of vocational education is more often given as an excuse than a reason for not providing adequate experiences in this area. In most forms vocational education *is* more expensive than general education but not so costly that even those communities with less wealth should be able to bear the expense. In one sense, no community can afford not to provide the experiences which will prepare its people occupationally. As pointed out in an earlier chapter, vocational education can pay for itself through increased earning power and contribution to the economy of the community. To fail to provide appropriate vocational experiences for youth and adults is to deprive the community of the opportunity to realize its economic potential. In the final analysis, society is benefited by an adequate supply of well-trained workers, who, because of their occupational competence, are happy and productive citizens. On the other hand, the individual consumer and society are inconvenienced and handicapped by the school's failure to supply competent workers.

Local Sources of Financial Assistance

The responsibility for financing vocational education and the practical arts in the community schools rests with the local community. Even in the case of vocational programs for which state and federal aid is provided, the larger proportion of the costs generally come from local funds. There is no federal aid for the practical arts and very few states provide special aid for this phase of general education.

For nearly a century the primary source of local funds for the support of public education has been property taxes. There are those who suggest that incomes would provide a more equitable tax base. In any event, there is general agreement that education is a public function and should be supported through universal taxation. At first this idea was applied only to the elementary schools. Later it was extended to include secondary schools and colleges and universities. The idea that vocational education, as a part of the community school program, is a public function has gained acceptance as the public has increasingly recognized its responsibility to support colleges and universities where the professional workers needed by society are prepared.

In addition to revenue through taxation, the community schools have several other local sources of income. When a school operates a program designed to serve the real needs of boys and girls, and with adequate facilities to provide for students from neighboring districts, the tuition fees (paid by the parents or the school districts in which the students reside) can be a major source of financial support. The income from this source may not be equal to the per pupil cost of the instruction (if the school were operated just for tuition pupils) but it might be sufficient to pay for the additional costs incurred by the tuition students and at the same time enable a community school to offer a greater variety of vocational programs for its own people. Tuition fees are sometimes charged residents of the school district, especially for services provided through the community college and the adult education program. In the case of adult courses these fees are generally nominal registration fees. The practice of charging fees of resident youth or adults is one which is not recommended, but it might be the only way to get a program of vocational education started in some communities. If tuition charges are necessary in order to meet the needs of youth and adults for vocational education, it should be considered a temporary source of revenue which will be removed as soon as the program is recognized as an integral part of the community school system.

Individual business and industrial firms as well as associations of people who operate business, industrial, and agricultural establishments have a legitimate reason to be interested in the development of vocational education opportunities in the community school. Such individuals and groups should be informed of the contribution which the community schools can make by preparing workers to enter employment with them and upgrading workers already in their employ. When business, industrial, and agricultural leaders become aware of the possibilities through vocational education, there is no limit to the help which they can give the schools through advisory and instructional services as well as through material assistance. Numerous illustrations could be given of significant contributions to the vocational facilities of the community school by business, industry, and agriculture. In one community the foundry industry paid for the remodeling of a room and then completely equipped it as a modern foundry to be used to provide instruction for high school boys desiring to prepare for foundry work and adults already engaged in such work. Members of an adult farmer class donated labor and the use of trucks to assemble concrete blocks, aggregate, and other materials for a farm mechanics shop and helped in the construction of it. Farm implement dealers frequently lend farm machines for use in farm mechanics classes. Labor unions have cooperated in the development of vocational training facilities, especially for apprentice training, by furnishing the labor to construct buildings and to build furnishings and equipment.

State and Federal Funds Available

State and Federal funds available to assist the local community in the development of the vocational and practical arts phases of their program are discussed in Chapter 24, "Resources Available at State and National Levels." It should be reemphasized, however, that special state and Federal funds are not available for all types of programs which any community may need and if such funds are available and used this does not make it any less a *community* school program. The community school need not give up the control of vocational programs merely because Federal and state aid is accepted in partial support.

Techniques Used to Reduce the Cost

Communities with a limited ability to support a program of vocational education and the practical arts can do a number of things to reduce the cost. They can make greater use of community facilities, invite business, industry, and agriculture to donate tools, equipment, and supplies, produce items of value to the school system and to other public institutions, and use volunteer teachers.

One of the most common ways in which community schools are utilizing business, agricultural, and industrial facilities in the community is through work experiences provided in these establishments under the direct supervision of experienced workers. Arrangements for such cooperative efforts are treated in detail in Chapter 17.

The business, industrial, agricultural, and homemaking interests of the community should be brought as close to the practical arts and vocational programs as possible. One technique for bringing them closer is to secure their active participation in the program. Supplies especially, and to some extent, tools and equipment, can be made available to the schools if their needs are known by these groups. School personnel should not place themselves in the position of begging for such materials. They should, however, be aware of available resources and accept only items of value in the instructional program.

Instruction in vocational education especially, and to a limited extent in the practical arts also, can be made more real and therefore more meaningful if the learner is given the opportunity to produce something useful and of value to himself or others. The production of such useful and often salable projects should not be considered a by-product of instruction but rather a vehicle or medium through which instruction can be made more vital. A caution needs to be given at this point, however; those responsible for the administration and supervision of these activities must always keep in mind the primary purpose of the schools—it is instruction and not production.

There are in every community men and women skilled in one or another phase of the practical arts or in a vocation who would be willing to teach others the competencies they possess. The services of such individuals can be used to supplement the instruction of the elementary and secondary school teacher, and they can also be used to teach other adults. Business and industry are interested in having their personnel perform such services for the community school and have produced literature designed to help them do a better job of teaching.

Enriched Programs Can Produce More State Aid

It has been pointed out that a community school program which is enriched through a generous infusion of the practical arts and activities designed to meet the needs of boys and girls for occupational preparation is more likely to hold students in high school until they graduate than is a minimum program. Since general state aid in most cases is based on either average daily attendance or membership in school, the amount of money any local community receives from the state will be increased by improving the holding-power of the school.

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Chapter 31

INTERPRETING THE PROGRAM

In the preceding chapters the nature and purposes of vocational education and practical arts in the modern community school have been briefly outlined. Emphasis has been placed on the teamwork necessary between laymen and school people to develop and improve these programs that are related to the work of adults and youth. Implicit in these discussions has been the necessity for a growing and deepening understanding on the part of citizens of their schools. The nature and scope of the task of developing a community-wide understanding of the objectives and activities of all programs of the public's schools have increasingly challenged the thinking of administrators, teachers, and other educational leaders. Much has been accomplished on this task. Many articles and books have been written on the general subject of interpretation. It is our purpose here first to examine the importance of community understanding of school programs of vocational education and practical arts. Following this, some of the successful practices of interpretation will be related to the task of developing such understandings by teachers, administrators, advisory committees, and school boards.

The Importance of Community Understanding of Programs of Vocational Education and the Practical Arts

Community programs of vocational education and the practical arts are relatively recent developments in American education. Practically all of the public-school programs of vocational education and most of those in the practical arts have been developed since the turn of the century. Probably most adults have not experienced the sort of instruction described in this book. Most have not completed secondary schooling. Those who have were, for the most part, enrolled in schools that did not provide such programs; or the instruction which they may have received did not meet the standards that are now being recommended. Many of these courses, therefore, do not enjoy the weight of tradition or the academic respectability characteristic of most other areas of instruction.

One principle of educational planning has been repeatedly stressed by the authors, namely, that the adequacy and effectiveness of programs are contingent upon the degree of citizen cooperation and participation in planning and evaluation. People of the community are the "consumers" of the product of their schools. They employ the graduates and the drop-outs from the schools. They should understand the nature and purposes of instruction in the work in which they are engaged or for which they are responsible. The people of the community should be specific when they supply details of their own needs in terms of occupational competencies and needs of others whom they employ. So they should know what the schools could do as well as what they already are doing. Experiences in working with school-initiated citizens committees for vocational education and the practical arts indicate that before such committees can assist in planning and evaluation it is necessary that the committee members become well informed on existing programs. If this understanding on the part of these representative members of the community is lacking we can safely conclude that there is a lack of understanding on the part of the rest of the people.

Effective teaching depends upon utilization of community resources. When men and women of the community serve as resource persons in class discussions, field trips, and other instructional activities they become, in a sense, a part of the community school. Their effectiveness in these roles will be contingent not only upon their experience and knowledge of the work that they do, but also upon an intelligent grasp of the aims and goals of the students and teachers with whom they work.

The preceding chapters have emphasized the wide scope and the variety of facilities needed for effective instruction in preparation for work and in using materials and resources in agriculture, business, the home, the shop, industry, and the market place. The people who pay for these school facilities have an interest in full utilization of them to justify the investment that they have made. They also want to make certain that the instructional use of such facilities will meet as many of the needs of the community as possible. They should be well informed in order to suggest new or additional courses, activities, and projects. Citizens should realize that the facilities are theirs for use in instruction for themselves through adult classes and for any other instructional purposes. Unfortunately, not all students in typical schools are well enough informed about these programs to fully avail themselves of them. This may be due to shortcomings of the guidance program, or because not all teachers and parents who advise students realize the potential instructional uses of these facilities for meeting the needs of youth. As has been previously pointed out, typically there is not an adequate understanding of the differences in objectives between specific courses designed to develop occupational competency and courses in the practical arts for general education.

Understanding on the part of the people is vital to the continued financial support of vocational education on the local, state, and national levels. Federal support for vocational education in public schools has been provided since 1917. Most states provide ear-marked funds for assisting local public schools in these programs. From time to time pressures arise to jeopardize this financial support. Furthermore, in times of depression, in times of overcrowding of school buildings, and in times of criticisms of practical instruction in the schools by persons with a classical background or by others, the relatively expensive programs of vocational education are especially vulnerable. But the continued financing of such programs on a broad base is essential. They are essential for high productivity for the standard of living that our people want, for efficient manpower for our national defense, for the equalization of opportunity among communities and states, for making our schools truly democratic, and for enabling every individual to develop competencies commensurate with his own interests and aptitudes.

Good teachers of vocational education and the practical arts have always been difficult to find and retain on staffs of the public schools. It would help to secure and hold good teachers in these areas of instruction if they could be made to feel that what they are doing is important and that the community appreciates what they are doing. Community understanding is vital to teacher morale and to permanence and creativity in the profession.

Vocational education and the practical arts have been and still are controversial subjects in some communities and among less well-informed people. There have been many misunderstandings of the nature and problems of our economy and of the work of the world. There are stereotypes in the thinking of people that have been traditional or that have been a carry-over of philosophies or ideologies of other societies or other times. If we are to develop a sound philosophy of education that will serve the community school we must recognize some of these. Following are listed some of the stereotypes in thinking, the misunderstandings, unfounded assumptions, or unreasoned beliefs sometimes held either by school people or lay citizens:

That secondary school youth are too young and immature to know what they want to do as a life work or to profit from specific vocational education.

That students who take courses in vocational education and the practical arts will receive a narrow or inadequate general education.

That subjects in the fields of practical arts or vocational education are not as good as others for students who want to enter college or university.

That these subject fields are designed to take care of students who are academically deficient, retarded, recalcitrant, or delinquent.

That students enrolled in industrial arts are learning a trade.

That students should be enrolled in certain vocational courses even though their vocational interests do not lie in these fields.

That employers will train most of their workers.

That people who do not enter the professions can "pick up" skills needed for holding a job.

That the occupational destination of most youth is employment in "big business or industry."

That most employed persons will be working at repetitive-type jobs which can be learned in a short time on the job.

That the machine has reduced or will reduce the demand for skilled workers.

That the function of vocational education and practical arts is merely teaching people to work with their hands.

That vocational education and trade training are synonymous.

That vocational education includes only programs that are reimbursable from the National Vocational Education Acts.

That vocational education is concerned only with development of skills.

That the function of the secondary school is to provide general education and that vocational education should be postponed until after completion of secondary school education.

That parents will provide the necessary training in farming and homemaking.

That systematic instruction is now being adequately provided by other agencies or institutions.

That standards of instruction and administration applied to other areas of the public school are sufficient and satisfactory for vocational education and practical arts.

The program of interpretation should have as one objective that of clearing up misunderstandings such as these. It also should have a constructive, positive approach. Emphasis should be placed on clarifying objectives of school programs of vocational education and practical arts, the educational services available and being provided, the courses offered, the achievements of students, and the needed future developments. The goal of school people should be to promote understanding of the whole school program and never to compare one part of the program with another.

The task of interpretation is such that a wide variety of media should be used, as well as a variety of techniques applicable to the subject being presented and the groups to be reached. These media may be grouped under the headings of school activities, activities of members of the faculty, and use of mass media of communication. They will be discussed in this order.

Interpretation through Activities of the Community School

The most effective single interpreter of school instruction is the student. Parents learn more about what is going on in the schools from their children than from any other source. It follows that a similar statement may be made for an adult enrolled in school. People are proud of newly acquired abilities and want to tell others about them or use them with profit to themselves or others. They are just as sure to let others know if the activities in which they are engaging seem to be unrelated to their life needs and goals.

School people should make it possible for citizens to observe clear, concrete outcomes of school instruction. Parents are interested in the achievements of their sons and daughters. When they judge the effectiveness of vocational instruction they like answers to specific questions. What are the former students in these courses now doing? How many are engaged in the occupations for which they were trained?

In vocational agriculture, students develop increasingly broad and profitable farming programs. Parents and others see these projects and other activities. Students talk about them. Some students, through unusual achievement, receive awards. The on-farm instruction and field trips, as well as activities in the farm-mechanics shop attract attention of practical minded people. As young men graduate and become established in farming through partnerships and on their own in increasing numbers, the full significance and meaning of vocational agriculture is understood by more and more people.

A business education program "sells" itself in much the same manner if it is properly organized and if the instruction is good. For example, boys and girls who learn to type and to take care of their personal business activities can be seen and appreciated. The extent of placement in offices and business places and the success on the job provide many persons with first-hand information to better understand school programs in business education.

When programs of homemaking are based upon student goals and needs in the home situation, when instruction and application of it are carried into the home, parents get first-hand information about homemaking programs and have a chance to see the results of instruction. When instruction is provided for adults in this field, they can judge for themselves. The present level of understanding on the part of citizens of the aims and activities of homemaking education probably is due more to information through pupils than is similar understanding of any other field of vocational education and the practical arts.

One can say the same thing about vocational industrial education that was said about vocational business education. Parents share equally with employers the information about training programs reported to them by their sons and daughters. They have a chance to see them later on at the work for which they were prepared. One of the most effective interpreters of the adult program is a worker who has been up-graded for the job on which he is employed or who has qualified for a better or more satisfying or challenging job.

The aims and purposes of industrial arts become more clear to parents as they observe some of the outcomes in their own children. Changes in interests regarding industrial occupations and activities can be observed, new hobbies are noted, and improved safety practices and habits come to light. As previously indicated, there frequently is misunderstanding regarding the true objectives of industrial arts. The student enrolled in classes will help parents to understand these objectives. Other people may not realize what the purposes are. So additional means must be used to supplement good teaching in industrial and other practical arts as well as in vocational education.

Programs of vocational education and the practical arts are closely related to the ongoing life and activities of the community and frequently are carried out where people live and work. These activities often involve groups of students or entire classes. Examples are: conducting of farm surveys, cooperative purchase of breeding stock, putting on a demonstration, preparing an exhibit at a fair or in a store window, conducting occupational surveys, and aiding in follow-up of graduates. These and many others are typical activities of youth organizations connected with programs of vocational education and practical arts.

These youth organizations: the Future Farmers of America, New Farmers of America, Future Homemakers of America, New Homemakers of America, Future Business Leaders of America, Distributive Education Clubs of America, as well as local clubs not affiliated with national organizations have tremendous potential for aiding the school to interpret to the public the aims, activities, and outcomes of programs with which they are connected. Some of these groups engage in competitive activities with chapters or clubs from other schools. These activities have public-relations potentialities, although a few words of caution might be well to heed at this point. There are some who feel that competitive activities are sometimes overemphasized by the FFA. If too much emphasis is placed on winning contests it may result in adverse publicity comparable to that sometimes following overemphasis on interscholastic athletics. These student organizations should confine themselves to youth activities and not engage in competition with legitimate business or in political or action programs ordinarily included in farm, labor, and busnessmen's organizations.

Although the major purpose of a citizens' committee for vocational education and practical arts is to give advice on planning and evaluating programs, such a committee could be very valuable in telling the community about these programs. Effective members of such a committee often will confer with their fellow citizens, the parents, the employers, and the farmers. Through these contacts the members could also answer many questions that citizens might have as to what is going on in the school. Laymen often are able to present information to each other in language that is more quickly understood than if done by some school people. As these members of citizens' committees retire from membership they help to swell the increasing number of informed citizens who can aid in the task of interpretation.

Interpretation by the Faculty

The task of the school superintendent, the board of education, and the members of the faculty in disseminating pertinent reliable information to all employers and others is well illustrated by the following:

> The writer recently heard a discussion between two employers concerning their experiences with local high school students as employees. One complained that the students he employed as part-time workers . . . were unsatisfactory, . . . that the local high school was not, in his opinion, doing a very effective job of preparing young people for earning a living.
>
> The second employer . . . pointed out quite emphatically that the high school students in his employ were quite satisfactory in every respect . . . he reported that turnover among student employees was quite low. . . . The other employer estimated that he kept student employees an average of less than three months.
>
> Both employers operated businesses in the same community. . . . The first employer obtained student employees by the hiring-at-the-gate method; he hired students recommended by acquaintances or by other students. The second employer explained that when he needed a part-time employee he visited the high school and explained the nature of the job to the principal. He was referred to the counselor, who invited the vocational coordinator to sit down with him and the employer to review the cumulative records of prospective student employees. They usually settled on two or more likely candidates whom the counselor and coordinator thought would be suitable and each was interviewed by the employer. He then selected the one he believed would be most likely to fill the job satisfactorily.

It was amazing to hear the dissatisfied employer confess that he had not thought of asking the high school to recommend students for part-time employment. The first employer did not know of the part-time co-operative program in the high school despite the fact that it had been in operation for more than ten years. This happened in a community of 6,500 inhabitants. Moreover, both of the employers involved in the discussion were members of the local board of education! [1]

The superintendent, principal, and board of education must depend upon teachers of vocational education and the practical arts for much of the information about these programs. Periodic reports by these teachers and coordinators and an annual report should be of value to all those not directly connected with a program. Supervisory officials should supplement this information with visits to classes and to representative students who are engaged in on-the-job training or are receiving individual instruction on the farm or in the home.

One of the ways of letting the adults in the community know what is going on in vocational education and practical arts is to bring them into the school. Classes for adults will help. Parent nights also have been very effective for this purpose. Regular classes are held and parents observe first hand some of the activities in which their sons and daughters engage. But other adults in the community should be invited into the school as well, at other times when school is in regular session. It will take considerable time and much work on the part of the school staff to make adults feel welcome and at ease in visiting school, but it can be done and is being done in a few places. There should be provision for receiving visitors in the school and for directing them to the rooms and shops where courses are taught in which they are interested. Some departments could set regular hours when the shop, laboratory, or classroom would be open and scheduled for consultation by teachers, coordinators, and administrators with adults of the community. Wallace suggests this good practice for departments of homemaking.[2] It should work equally well for other departments within the limitations of time available during ordinary working hours.

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[1] Editorial, *Michigan Guidance Services News Letter* 5: 1–2, May, 1953.

[2] Inez Wallace, "Interpreting Home Economics in the Community," Chap. XI, National Association of Secondary School Principals, *Home Economics in the Secondary School*, Bul. 35, Oct., 1953.

As pointed out in Chapter 22, all members of the school faculty should be well enough informed about programs of vocational education and practical arts so that they can tell others about them. Those who, through their regular duties, come into contact with community groups and who work with parents and employers should realize that these people are sometimes less well informed on such programs than they should be if they are to do their part in helping to make them effective. The informal contacts made by school faculties and administrative officials often are very effective. One medium for informal approaches is the telephone. Teachers and administrators should, therefore, have easy access to it. People who receive calls should make every effort to handle them in such a way as to build good will and understanding of the program of the school. Correspondence should receive the same careful attention in any program of public relations. Inquiries the recipient cannot answer should be referred to someone who has the information.

Interpretation through Mass Media of Communication

Articles written by school people for the local and regional newspapers, as well as for general periodicals, are very effective in reaching large segments of the public. In many instances where the school has an outstanding story to tell, professional writers employed by the publishers have done the writing, using materials furnished by the school. Pictures help to tell the story. The school should provide necessary equipment so that photographs can be made of students at work in shops, laboratories, classrooms, on field trips, in the homes, on the farms, in the stores, and in other places of work. In addition to printed brochures and folders, bulletins to the parents and general public, school newsletters, direct mail, and posters all have a place in developing community understanding of programs of instruction. Teachers and coordinators should write articles describing the programs for which they have responsibilities for publication in professional journals. Care must be taken to make certain that all information presented is accurate and authentic.

Student demonstrations have proved to be effective media for informing people of some kinds of learning activities. Safety in the home, on the farm or in the shop; new or approved practices in production, selling, mechanical work or control of erosion; proficiency in specific skills; and illustrations of accomplishments are only a few of the subjects that have been successfully used for this purpose. These demonstrations are often given, not only to school assemblies, but also to parent-teacher groups, service clubs, farmers' meetings, and other public gatherings.

Some schools provide equipment and assistance for the making of movies of student activities for local showing. These movies could also be used in other communities in which the schools do not have similar courses or programs, but in which they are being considered. The use of this and other media in relation to one vocational program is reported by a coordinator in the school:

> Public relations for our diversified occupations program is built around newspaper stories, motion pictures, and employer-employee banquet, and the civic activities of the coordinator.
>
> Several years ago, a 16 millimeter movie, in color, was made of the activities of the D O students. This film has been shown to civic groups, junior and senior high school classes, and to hundreds of people at annual open-house nights.
>
> The industrial arts department publishes a monthly paper with a circulation of more than 500 students. The local newspaper (circulation 6,200) donates a weekly page for the school.
>
> Our employer-employee banquet rates front page publicity. The coordinator, through daily contacts, continually promotes the program.[3]

In another school local civic clubs were invited to luncheon in the high school cafeteria once a week for five weeks. Following these luncheons there was an inspection of the classes in industrial arts and vocational education. Each instructor presented a five-minute discussion of the courses they were teaching. About 250 persons were entertained and instructed. One of the outcomes was a detailed survey of community needs later developed.

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[3] Bruce Neill, "What Has Been Your Most Beneficial Public Relations Project?" *American Vocational Journal*, 28: 27, May, 1953.

Many schools have taken advantage of opportunities provided by local radio stations to present programs by students and/or staff members from classes in vocational education and the practical arts. In these programs groups of students discuss their experiences and activities. Parents and employers are often included in the discussions. Some chapters or clubs in these departments broadcast a portion of one of their regular meetings. Students sometimes are interviewed regarding their work experiences Sometimes these interviews are recorded on tape out on the farm, in the home, in the store, or other place of work, and then made available to several radio stations. In some states, the office of vocational education in the state department of public instruction sponsors a series of radio broadcasts. Local representatives sometimes appear on these broadcasts. In this way many people, who otherwise might not have an opportunity to learn about these practical school programs, find out what some of the schools are doing.

In communities adjacent to television stations there has been a growing awareness of the possibilities of interpretation through this medium. This is especially true in connection with university stations with an educational license and other stations not dependent on network programs. An example of activity of this type is found in Erie County, Pennsylvania. In that area the local chapters of FFA produced regularly scheduled shows at the rate of one to three per week over a two-year period. These shows were scheduled for each week at the same period. The county supervisor of agricultural education served as monitor of the programs. He reports that it has not been difficult to find subject matter for the 109 shows that were produced.[4] There is no department in the community schools that lends itself to visual presentation of this type better than those in the areas of vocational education and the practical arts. While it is true that some materials cannot be brought into a studio, it must be remembered that these are all departments in which students work with materials. Many student activities working with these materials could be shown.

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[4] Biron E. Decker, "T.V. Is Show Business," *The Agricultural Education Magazine*, 27: 10, 15, July, 1954.

If the schools would make full use of available means of informing the public about programs of vocational education and the practical arts, the people might eventually know as much about them as they do of other school programs. This should be the goal of educators. Only with a full understanding by the people of a community can we expect vocational education and the practical arts to develop in community schools to the point where they will make the optimum contribution to individuals in the community and to the furtherance of the aims of a democratic society.

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Index

Administration of vocational education and the practical arts, 460–480
  comprehensive vs. specialized secondary schools, 473–475
  need for assistance in the, 461–463
  need of larger school units for the, 475–476
  organization for a large city school system, 464–465
  organization for a smaller school system, 466–467
  principles of organization for the, 463
  secondary school organization for the, 467–473
  specialized services through cooperative efforts in the, 476–478
  the school is the principal unit in the, 464–467
Adult education
  erroneous concepts of, 301
  for establishment in the occupation, 306
  for progress in the occupation, 301–307
  point of view, 300–304
  scope of, 299
  vocational, 299
    need for, 304–306
    scope of, 305
  vocational education and practical arts in, 32–33, 299, 309–310
    administration of, 479
    for the aging, 330–331
    scope of, 305, 328–330
  (*See also* Agricultural education, Business education, Homemaking education, Industrial education)
Agricultural education
  facilities and equipment for, 442–446
  general agriculture
    as a practical art, 87
    definition of, 87
    for adults, 90
    in the elementary school, 89
    in the secondary school, 89, 246–248
    programs of, 246–248
  vocational agriculture
    classroom instruction in, 213–214
    course building in, 206–207, 214
    farm mechanics in, 214, 315, 444
    for adults, 323–324
    for young men on farms, 313–316
    in secondary schools, 210–215
    objectives of, 219
    phases of, 211
    problems of, 316
    supervised practice in, 212–213
Agricultural occupations
  choice of, 185
  efficiency of workers in, 62, 72–73
  instruction for, 323–324
  part-time workers in, 324
Allen, Charles R., 200–201
Allen, W. Paul, 391, 412
Allion, Helen, 299–300, 305
American Association of School Administrators, 462, 477
American Home Economics Association, 437
American Industrial Arts Association, 437
American Vocational Association, 95–96, 195, 346, 370, 382, 384, 406, 435–437
Anderson, Stuart, 265, 390
Apprentices
  definition of, 318
  needs of, 318
  number of, 60–61
  training of, 318–319
Apprenticeship, U.S. Bureau of, 61
Arny, Clara Brown, 210, 347
Automation, 69–71

Baker, Emily V., 138
Bateson, Willard, 455

Bell, Howard M., 178, 278–279
Bender, Ralph, 317
Bing, Kenneth L., 193
Bingham, Walter V., 395
Blackwell, Sarah, 347
Bolenbaugh, Lawrence, 193
Brodell, Albert P., 73
Brucker, Adam, 59
Brunner, Edmund de S., 7
Burnham, William H., 151
Business and industrial firms, size of, 60–61
Business education
  definition of, 90–91
  facilities and equipment for, 446–450
  general, 90
    as a practical art, 90–92
    for adults, 92
    in the elementary school, 91
    in the secondary school, 92, 248–251
  vocational
    areas of, 223–224
    course building in, 208
    distributive education, 225
    for adults, 320–322
    in the secondary school, 222–226
    objectives of, 222, 223
    office practice in, 224
    related subjects in, 224
Business occupations, 185

Cabot, Richard C., 150
Child development
  interrelationship of physical, mental, emotional, and social aspects of, 126
  organismic concept of, 110
  personal-social adjustments in, 141–143
  (*See also* Needs)
Children, individual differences of, 125
Churchill, Betty C., 60
Citizens' committees
  craft advisory, 418
  evaluation by, 424–426
  help from, in selecting content for courses, 413
  joint apprenticeship, 418
  kinds of, 414–418
  meetings of, 414–418
  membership on, 421
  officers of, 422–423
  place of, in the public schools, 410–412
  policies on which advice should be sought, 419
  principles and practices in use of, 420–424
  purposes of, 412–414
  questions to be dealt with, 424
  selection of members for, 421–422
  size of, 420
  value of, in interpreting the schools, 411–412
Civilian Conservation Corps, 40, 49
Clark, Raymond M., 435
Comenius, John Amos, 135
Community
  area, 7–8
  definition of, 4
  interdependence of school and, 10–11
  needs of the, 3, 11
  occupational pattern of the, 18
  sources of data for studying the, 403–405
  studying trends in the, 405–406
Community college, 478–479
  general and specialized education in the, 116–117
Community resources
  educational, 16
  full utilization of, 28–29
  governmental agencies, 19–20
  human, 15, 25, 26
  institutional, 20–21
  natural, 17–18
  production and distribution, 19–20
  utilization of, in education, 12, 17–18, 19–21, 22–23, 26–27, 489–490
Community school
  concept, 4–5
  criteria of, 5–8, 31–33
  definition of, 4, 28
  interdependence of school and community, 10–11
  program structure of the, 8–9

  role of educators in, 12
  scope of, 7–8
  support of, 12–13
  teachers neeeded in, 9–10
  vocational education and practical arts in relation to, 34
Community study, 9, 11, 230, 232, 354, 390–391, 403–405
Community understanding of vocational education and the practical arts, 488–493
Consumer goods
  need for, 62–63
  production of, 64
Cook, Lloyd, and Elaine, 4
Cooperative occupational training
  advisory committees for, 272
  coordination of, 272–274
  definition of, 270
  diversified programs of, 272
  employment-training opportunities for, 271
  evaluation of, 273
  in industrial occupations, 227–228, 271
  occupational survey for, 271
  related instruction for, 274
  training plan for, 273
  training stations for, 272
  utilization of resources for, 27
  (*See also* Work experience)
Cooperative planning, 6, 7, 8, 10, 11, 32, 489
Corey, Stephen M., 358
Crosby, Otis, 38

Dalrymple, Julia, 202
Davis, John E., 244
Decker, Biron E., 500
Defense Mobilization, Office of, 61, 63, 75
Democracy in education, 8, 52, 53
Dewey, John, 85, 130, 136, 144
Deyoe, George P., 445
Diamond, Thomas, 457
Diebold, John, 69, 70, 73
Dillon, Harold J., 191, 196–197, 265
Distributive education
  (*See* Business education)
Distributive Education Clubs of America, 226
Distributive occupations, 59
Doane, Donald C., 179–180, 278
Douglass, Harl R., 192, 434
Driver training, as a practical art, 97
Drop-outs, school, 196–197, 317–318
  (*See also* Follow-up studies)

Ekstrom, G. F., 247
Elementary school, the
  agricultural education in, 89
  business education in, 91
  curriculum of, 127–128
  facilities of, 131
  goals of, 127
  homemaking education in, 94
  improved community living through, 129–130
  industrial education in, 96–97
  organization and content of curriculum in, 127, 133–134
  place of education for work in, 146–148
  skills taught in, essential to living and working, 154–155
  the community and, 22–23, 129–130
Enterline, H. G., 222
Entry occupations, 400
Ericson, Emanuel E., 456
Evaluation of instruction, 346–349
Exchange classes, 359
Extension Service, Cooperative, 21, 207, 325, 413, 437

Facilities and equipment, 26–27, 439–459
  cooperative use of, 361–362
  flexibility of, 441
  general principles in planning of, 440–442
  in the elementary school, 131
  location of, 441–442
  size of shops and laboratories, 440, 443, 447, 457
  types of facilities
    all-purpose homemaking room, 401–452
    farm-mechanics shop, 442, 444
    general shop, 455

Facilities and Equipment (*continued*)
    homemaking cottage, 452
    school farm, 444–446
    school forest, 446
    school store, 449
    unit shop, 455
  utilization of, 27, 440–441
  (*See also* Agricultural education, Business education, Homemaking education, Industrial education)
Fatherree, A. P., 64
Federal aid for vocational education, 33, 74–75, 76, 377–379, 485–486
Financing vocational education and the practical arts, 28–29, 33, 39, 377–380, 403, 481–487, 490–491
  local sources of aid, 483–485
  techniques used to reduce the cost, 486–487
Fitzgerald Act, 61
Flemming, Arthur S., 57, 59, 68, 70, 75, 311
Follow-up studies, 195–197, 406–407
Forbes, Robert J., 235
Ford, Henry, 69
Franklin, Hazel, 327
Freeman, M. Herbert, 249
Froebel, Friedrich, 85
Future Business Leaders of America, 226
Future Farmers of America, 194, 211, 214–215
Future Homemakers of America, 194, 220–221

Gallagher, Buell C., 177
General and specialized education
  both needed, 116
  definitions of, 106–107
  must be unified, 109
  parts of total education, 107–108
General education
  and specialized enhance each other, 119–120
  balance between specialized and, 117–119
  contributes to occupational preparation, 110–111
  definition of, 106–107
  on college or post-high-school level, 116–117
  on elementary level, 113–114
  on secondary level, 115–116
  purpose of, 94
  relation of, to the practical arts, 83
  work-related aspects of, 22–23
Gilchrist, Robert S., 235
Ginzberg, Eli, 282–283, 284–285, 286–287
Good, Carter V., 106
Graves, A. D., 39
Grimm, Edgar, 5
Guidance
  definition of, 277–278
  occupational adjustment, 278, 314
  vocational education and vocational guidance inseparable, 288–289
Guidance services, 277–296
  coordination of, with related services, 294
  qualifications of personnel in, 292–294
  the place of the specialist in, 289–290
  the place of the teacher in, 290–291
  the practical arts contribute to, 287–288

Haas, Kenneth B., 225, 449
Hamlin, Herbert M., 5, 8, 88, 246–247, 410, 420
Hand, Harold C., 174–175
Harvard Committee, Report of, 160
Haubert, John R., 446, 448
Havighurst, Robert J., 86, 180–181, 300
Hawkins, Wallace, 445
Hayden, Carlos K., 222, 224
Homemakers
  adult, problems of, 326–327
  adult, vocational education of, 325–328
  career of, the, 185
  needs of, 64–66
  problems of, 66
  trends in the occupations of, 65

  young, 313–316
Homemaking education
  areas of content, 217, 219
  as a practical art, 92–93
  community experiences in, 220
  course planning in, 207
  definition of, 93
  facilities and equipment for, 450–454
  for adults, 94, 323–328
  home experiences in, 218–220
  home visiting in, 219
  in the elementary school, 94
  in the secondary school, 94, 216–221, 251–256
  objectives of, 93, 216–218
Hoover, Herbert, 39–40
Hoppock, Robert, 50, 190
Hornbostel, Victor O., 188
Huddleston, Kenneth, 72
Hull, J. Dan, 39

Industrial education
  facilities and equipment for, 454–458
  industrial arts as a part of, 94
    definition of, 95
    for adults, 329
    in the elementary school, 96–97
    in the secondary school, 96, 256–259
    objectives of, 95–96
  scope of, 94
  vocational industrial education
    cooperative training program in, 221, 227–228
    course building in, 208
    development of programs of, 230–231
    for adults, 320–322, 324–325
    foremen and supervisors, 324–325
    in the secondary school, 226–231
    need for, 71
    objectives of, 227
    pre-employment training in, 227
    training for multi-skilled occupations in, 228–229
    training for unit-skilled occupations in, 228
  (*See also* Apprentices)
Industrial occupations, 185–186
Interpretation
  by the faculty, 496
  objectives of, 492–493
  of work experience programs, 268
  through activities, 492–496
  through adult classes, 497
  through mass media, 498–501

Jaffe, A. J., 56, 64, 69, 242–243, 404
James, William, 135
Job analysis, 25, 208
  (*See also* Occupational analysis)
Johnson, B. Lamar, 83
Joint classes and cooperative teaching, 350

Kallen, Horace M., 165
Kaplan, David, 65
Keller, Franklin J., 47, 50
Kempfer, Homer, 32, 304
Kendall, Albert R., 73
Kilpatrick, William H., 189
Kindred, Leslie W., 391, 412
Knudsen, William S., 152
Kolb, J. H., 7
Krug, Edward, 6
Kubik, Betty Martin, 450

Labor force, the
  distribution of, 56–60
  distributive occupations in, 59
  farmers in, 58, 63
  new occupations and new jobs, 308
  trends in, 56–58, 67, 405–406
  women in, 65
  (*See also* Industrial occupations, *also* Skilled workers)
Lamplough, William J., 356
Land, S. Lewis, 346
Lang, Andrew C., 310
Lindquist, E. F., 125
Lippold, Donald, 22
Low, Camilla M., 170
Luke, Robert A., 299–300, 305
Lund, John, 5
Lurry, Lucile L., 192
Lyle, Mary S., 217, 218, 326, 327, 450

McClusky, Howard Y., 129, 167

McGinnis, Esther, 219
McGranahan, George, 37
McGrath, Earl J., 75
Machines and the work people do, 66–73
  in business, 69
  in farming, 72–73
  in industry, 68
Mack, John A., 328
McPherson, Marion C., 391, 395
Masters, Hugh B., 367–368
Methods of teaching to develop
  abilities and skills, 338–339
  abilities in problem solving, 340–341
  attitudes and habits, 341–342
Michigan State University, 275
Miller, Van, 192
Mooney, Ross L., 168
Moore, Bruce V., 395
Moore, Hollis, 445
Morrow, John M., 320
Myers, George E., 150

National Association of Manufacturers, 261
National Association of Secondary School Principals, 176–177
National Business Teachers' Association, 437
National Citizens' Commission for the Public Schools, 409
National Education Association, 127, 175–176, 299, 382, 384, 437
National Manpower Council, 61, 399
National Society for the Study of Education, 170–172
National Vocational Agriculture Teachers Association, 437
National Vocational Education Acts, 377–379
  George-Barden Act, 76, 377
  George-Deen Act, 76
  Smith-Hughes Act, 377
National Youth Administration, 40
Needs
  developmental tasks, 86
  individual, 86, 182
  of children, 41, 126, 137–141
  (*See also* Youth)
Neill, Bruce, 499
New Farmers of America, 211, 215
New Homemakers of America, 221
Newman, Walter S., 195
Nichols, Mark, 316
Nicholson, David, 304
Nolan, C. A., 225
Norton, Thomas L., 194–195

Occupational analysis
  course planning in relation to, 208, 336–337
  methods of, 336
  (*See also* Job analysis)
Occupational choices and career planning
  nature of, 282–287
  need for, 278–280
  process of, 283–285
Occupational exploration, 23–24
O'Donnell, Beatrice, 220, 236
On-the-job training, 24
Open-house programs, 499

Parent education, 36–37
Parker, Ethel Lee, 348
Patrick, C. W., 38
Pestalozzi, Johann Heinrich, 85, 135
Plato, 85
Potter, Thelma, 224
Practical arts, the
  agricultural education as, 87, 329
  as method, 85–86
  as subject matter, 84–85, 132–134, 239–240
  business education as, 90, 329
  community activity as a basis for, 41
  definition of, 82, 100, 132
  development of skills, abilities and understandings, 241–243
  discovery of special talents through, 143–144
  driver training as one of, 97
  exploring the world in which we live, through, 240–241
  for adults, 309–310, 328–330
    do-it-yourself movement, 310
  for the aging, 311
  general values of, 84
  homemaking education as, 92–93

  industrial education as, 94
  integration of, 144–145
  meaning of, 81
  mental health and emotional balance through, 243–244
  need for, 84
  objectives of, 100
  programs described, 245–259
  relation to general education, 83, 134–141
  similarity to vocational education, 99
  success and recognition through, 141–143
  vitalizing instruction in other subjects through, 244–259
Prakken, Lawrence, 455
Prescott, Daniel A., 178, 278
Proctor, William M., 193
Professional education, 51, 52, 53
Prosser, Charles A., 200–201, 303
Proud, Philip J., 38
Public relations
  (*See* Interpretation)
Public service employees
  vocational education for, 322
Pupil-teacher planning, 207, 337–338

Randall, Helen H., 391, 395
Reeder, Ward G., 476
Related instruction, 227, 274, 343–345, 353
Resources
  of the school, 21–22
  (*See also* Community resources)
Roosevelt, Theodore, 47
Rousseau, Jean-Jacques, 85
Russell, Bertrand, 188

Sadler, Michael, 135
Sams, J. E., 72
School camping, 266
Seay, Maurice, 4
Secondary school, the
  change in the character of population of, 159–160
  core curriculum in, 191–192
  lag of curriculum adjustments in, 161–162
  the nature of youth in, 162–165
    differences, 162–164
    similarities, 162
  (*See also* Agricultural education, Business education, Homemaking education, Industrial education)
Shartle, Carroll, 35, 64, 404
Shaw, Byron T., 72
Sheats, Paul, 302
Shops
  (*See* Facilities and equipment)
Skilled manpower, dilemma of the consumer in buying, 61–62
Skilled workers
  as teachers, 15–17, 21, 24–26
  prediction of need for, 400–402
  productivity of, 73
  supply of and demand for, 55–61, 67, 70, 75
Soil Conservation Service, 19, 25
Spafford, Ivol, 216
Specialized education
  and general enhance each other, 119–120
  balance between general and, 117–119
  definition of, 107
  degree of emphasis on, 116
  for occupational purposes has general education outcomes, 111
  on college or post-high-school level, 116–117
  on elementary level, 113–114
  on secondary level, 115–116
State aid for vocational education, 379–380, 485–487
State and national resources, 376–385
  conferences and workshops, 384–385
  consultative, 380–381
  financial, 377–380, 485–486, 487
  research and publications, 381–384
Stewart, Charles D., 56, 64, 69, 242–243, 404
Stoddard, Alexander J., 120
Strohm, Jack, 70
Strong, E. P., 248
Struck, F. Theodore, 100
Super, Donald E., 284–286
Supervision of vocational education and the practical arts, 364–375

Supervision of vocational education and the practical arts (*continued*)
  supervisory role of
    department head or committee chairman, the, 373–374
    local administrator of vocational education and the practical arts, 368–371
    school principal, the, 272–273
    special supervisor or consultant, the, 371–372
    superintendent, the, 366–368
    teacher, the, 374–375
  nature of supervisory functions, the, 364–366
Surveys
  check list for, 397–399
  forms for, 394
  occupational, 233, 271
  purposes of, 390
  steps in organizing and conducting, 392–396
  types of, 391–392
Sweany, H. Paul, 324, 401

Teacher education
  in-service, 345–346
  institutional, 429
  pre-service, 10
  work experience in, 357–358
Teachers
  adult, special certification of, 431–432
  cooperation of, 355–358
  employment conditions of, 432–436
  load of, 232–233, 431, 433–435
  professional organizations of, 436–438
  qualifications of, 201–203, 273
  recruitment and selection of, 428–431
  salaries, 433
  satisfactions of, 435–436
  staff relationships of, 436
  supply of, 234, 430
Tead, Ordway, 353
Technology
  and worker efficiency, 307–308
  effect of, on labor force, 67, 308
  effect on farming, 72–73
  meaning of increased application of, 71–74
Thayer, V. T., 164
Thorndike, Edward L., 300–301
Tibbetts, Eva, 225, 449
Trade analysis
  (*See* Job analysis)
Trade and industrial education
  (*See* Industrial education, Vocational education)

United Business Education Association, 437
U.S. Bureau of Apprenticeship, 19, 61
U.S. Bureau of Labor Statistics, 19
U.S. Bureau of the Census, 404
U.S. Department of Labor, 153, 208, 382, 404
U.S. Office of Education, 255, 294, 381–382

Van Horn, Rua, 94
Veterans' vocational training institutional-on-farm, 63–64
Vocational competence and job satisfaction, 189–190, 309
Vocational education
  and national defense, 74–76
  and success in school, 190–193
  and the standard of living, 194–196
  and vocational guidance inseparable, 288–289
  characteristics of, in secondary education, 200–210
  definition of, 50–51, 100
  degree of occupational competence developed in, 209–210
  equality of opportunity for, 52–53
  evaluation of, 195–196, 406–407
  Federal aid for, 74–75
  grade placement of, 208–210
  in correctional institutions, 188
  in Germany, 74
  learning environment in, 204–205
  methods of teaching in, 338–343
  misconceptions about, 186, 491–492
  need for, 38–39, 64
  objectives of, 100, 205–206
  organization and administration of, 28, 231–236

  problems in organizing, 231–236
  problems in smaller schools, 233–234
  programs in, 231–236
  relation of, to general education, 187–189
  results of, 61, 62
  scheduling of, 231–232, 234–236
  selection of course content in, 206–207
  selection of students for, 294–296
  similarities to the practical arts, 99
  youth organizations in, 194, 211, 214–215, 220–221, 226, 495
  (*See also* Agricultural education, Business education, Homemaking education, Industrial education)
Vocational education and the practical arts
  closely related in practice, 103
  community approval of, 39
  cooperative faculty activities in the improvement of, 355–358
  differences, 100–103, 235
    in chronology, 101
    in content and method, 101–102
    in degree of concentration and specialization, 102–103
    in objectives, 100–101
    in qualifications of instructors, 103
  evaluation of instruction in, 346–349, 424–426
  facilities for, 104
  faculty committees for, 353–355
  for the aging, 330–331
  interest of faculty in, 351–352
  need for, 38–39
  relation to success in college, 192–193
  similarities of, 99–100
  supervision and administration of, 104–105
  support of, 39
Vocational goals
  of secondary school youth, 51–52, 185–187
  of young men on farms, 315
  opportunities for employment in relation to, 278–280
  relation of, to vocational education, 203–204
Vocational schools
  area, 274–275
  elementary, 147
  private, 35–36, 53
  trade, 36
Vocational technical education, 58, 229, 275

Wallace, Inez, 497
Walters, R. G., 225, 395
Weber, Clarence E., 358
Weigel, Erhard, 135
Wells, H. G., 299
Wenrich, Ralph C., 111–112
Whitehead, Alfred N., 108, 136–137, 149
Wiener, Norbert, 71, 184
Wilber, Gordon O., 95
Wiles, Kimball, 364
Williams, Kenneth R., 225, 320, 449
Williamson, Maude, 217, 218, 327, 450
Wood, William, 304
Work
  development of attitudes toward, 148–152
  development of habits of, 49, 152–153
  education for, 35
  equality of opportunity to, 51, 52, 53, 54
  in a democracy, 47
  in the lives of people, 48
  understanding of the world of, 153–154
Work experience
  and success in school, 191
  counseling students in regard to, 268–269
  defined, 262
  educational value of, 23, 48–49, 263–265
  evaluation of, 263–265, 269–270
  interpretation of, to the public, 268
  placement of students for, 266–267
  principles for administration of, 267–268
  programs of, 262–265, 266–270

Work experience (*continued*)
  types of, 262–263
  working permits for, 269
  (*See also* Cooperative occupational training)
Work-related aspects of general education, 22–23, 144–145

Yates, James A., 193
Yeager, William A., 5
Youth
  and life adjustment, 165–167, 177
  and the future, 167–168
  developmental tasks of, 86, 164–165, 180–181
  needs common to all, 174–181
  needs common to a particular group of, 181–182
  needs of, 111–113, 162–168, 170–183
    for vocational development, 184–187
    nature of the, 170–174
  ten imperative needs of, 176–177

Zollinger, Clinton D., 444